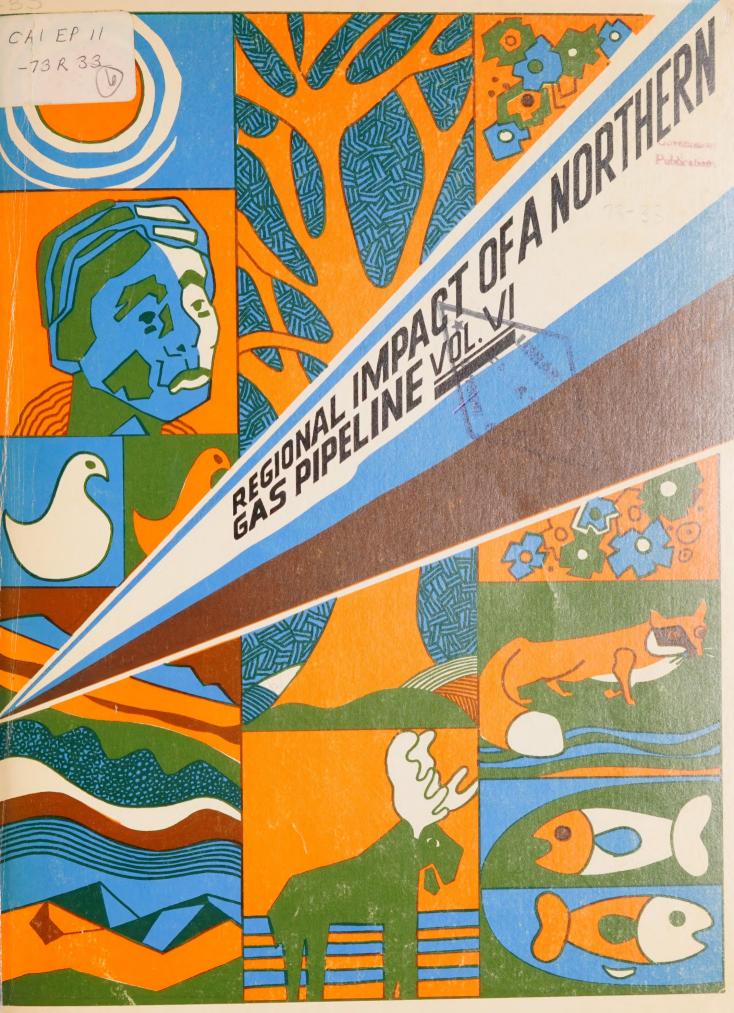


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REGIONAL IMPACT

OF

A NORTHERN GAS PIPELINE

Volume 6 - Impact of Pipelines on Territorial Population, Labour Force, Employment and Income (Wages)

An Appraisal Prepared By

The Economic Staff Group
Northern Economic Development Branch
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and

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for the

Environmental-Social Program
Northern Pipelines

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The data for this report were obtained as a result of investigations carried out under the Environmental-Social Program, Northern Pipelines, of the Task Force on Northern Oil Development, Government of Canada. While the studies and investigations were initiated to provide information necessary for the assessment of pipeline proposals, the knowledge gained is equally useful in planning and assessing highways and other development projects.

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PREFACE

SIGNIFICANT ALTERATIONS IN BASE DATA RELATED TO THE CONSTRUCTION OF THE PIPELINE AFTER COMPLETION OF ANALYSIS

Basic information concerning the cost of constructing the Mackenzie Valley Gas Pipeline, its route, specifications and the timing of construction was available in only a rudimentary form when the study of the Regional Impact of a Northern Gas Pipeline was undertaken. Although there remain large areas of uncertainty concerning many important aspects of the phases of construction of the pipeline, present knowledge of construction is understandably more complete today than it was when the study began. Certain assumptions made in the study are no longer applicable but it is considered that the overall analysis remains valid, even in the light of these changes. This Preface points out the significant changes in cost estimates, pipeline specifications, pipeline routing, and construction scheduling which are a result of more recent knowledge.

(i) Overall Cost

The Impact Study was provided with estimates of the costs of building the pipeline in the North by the various study groups which suggested a value of approximately \$1.2 billion. Present statements by Canadian Arctic Gas Study Limited suggest a cost of \$5 billion. The difference between these estimates is mainly due to the fact that the \$5 billion figure refers to the complete project, including the Alaska and southern Canada sections. According to estimates prepared by the Northern Program Planning Division (formerly the Economic Staff Group) if these costs are expressed in 1973 constant dollars, the \$1.2 billion estimate would be \$1.4 billion, while the \$5 billion estimate, when adjusted to measure only the cost of the relevant sections of the pipeline, would be \$2.0 billion. Of the difference, \$140 million is caused by more expensive financing costs, while the rest of the increase stems from an underestimate of the cost of materials and equipment. The initial estimates of labour requirements and costs appear to remain valid.

(ii) Pipeline Routing

The initial aim of building the Mackenzie Valley Gas Pipeline was to transport natural gas from Prudhoe Bay, Alaska to markets in the U.S.A., with the prospect of linking any finds in the Mackenzie Delta to it at a later time. In the light of gas discoveries in the Delta it now seems more likely that the Delta connection would be made concurrently with or even preceding the Prudhoe Bay connection. This shift in interest to the Mackenzie Delta region prompted the need to investigate the impact of the long-term development of the petroleum industry in this region. Thus additional analysis was carried out on the possible impact of future development prospects on the Delta region, and the results of this work are shown in Chapter 14 of Volume 1.

(iii) Construction Phases

The Impact Study has assumed that major pipeline construction activity would proceed more or less continuously over three and a half years, beginning in early 1976, and finishing in 1979. Although the exact time periods involved are still a matter of some speculation, current plans aim to start construction in the winter of 1976-1977 and to spend only two construction seasons on building the pipeline through to the Mackenzie delta, with a third winter for an extension to Prudhoe Bay. Major construction activity will be limited to four winter months in the Thus more recent plans are based on significantly more optimistic construction schedules than those outlined in the study. This will clearly lessen the duration of the impact of the construction of the pipe on the Territories, relative to some of the results of analysis in the study.

(iv) Pipe Specification

The major change in pipe specifications that is of concern to the study concerns the wall thickness of the pipe. Northern sections of the pipe will have a thickness of 0.75", which is approximately 15 per cent thicker than that anticipated. This means that the pipe is some 15 per cent heavier than had been assumed, and, in the light of this, the estimate of transportation requirements has been reviewed. The overall weight of pipe to be moved into the Territories is now estimated at 866,000 tons compared to 750,000 tons initially estimated. However, since the number of lengths of pipe would remain unaltered, there would be no significant change in the number of men required to handle and transport them.

The major impact of the heavier pipe appears to arise from the need to have more units of pipe-laying equipment than would otherwise be the case.

(v) Mackenzie Highway

Completion of construction of the Mackenzie Highway before the construction of the pipeline was not anticipated in the study. The decision to accelerate construction of the highway will provide an alternative means to the Mackenzie River, of transporting material and equipment to stockpiles along the pipeline route. The impact of a highway on the pipe installation would be significant because it would induce a major shift in the expected pattern of transportation of the pipe and equipment away from barges and onto trucks. Although the barge traffic is thought to remain predominant, the ton-miles of materials carried by highway is expected to be triple that originally estimated.

INTRODUCTION

This volume is a background study of the economic impact on Canada's northern territories of constructing and operating a large diameter gas pipeline from Alaska through the Mackenzie Valley to the northern border of Alberta. Seven volumes constitute the overall evaluation:

- Volume 1 Summary Report
- Volume 2 Relevant Aspects of Pipeline Construction and Operation in the Territories and Impact on Local Petroleum Resources
- Volume 3 Impact of a Pipeline on Territorial Transportation Facilities, Resource Output and Industrial Development
- Volume 4 Impact of Pipelines on Selected Territorial Communities
- Volume 5 Impact of Pipelines on Traditional Activities of Hunter-Trappers in the Territories
- Volume 6 Impact of Pipelines on Territorial Population, Labour Force, Employment and Income (Wages)
- Volume 7 Analysis of Overall Territorial Impact of a Through Gas Pipeline

The Economic Staff Group, Northern Economic Development Branch, Department of Indian and Northern Affairs initiated the research project in 1971, undertaken as a joint evaluation between the Economic Staff Group and MP.S Associates Ltd. Both groups provided members to the project team and research topics for the relevant volumes of the project assigned to individual members.

The conclusions in Volume 1 are those of the study group as a whole, while the conclusions and opinions in Volumes 2 to 7 are those of the respective authors.

The principal autnor of Volume 6 was Sheila K. MacBain of the Economic Staff Group. Part 4 was written by Peter J. Usher of the Northern Science Research Group.

PREAMBLE TO VOLUME 6

Any construction as large and complex as a large-diameter pipeline will have an inevitable impact on the economy of the affected area. More importantly, an area as remote and sparcely populated as the Mackenzie Valley, the effects could be quite marked, particularly on the local native residents. Impact, to some degree, would be felt whether or not government authorities acted directly to involve local residents in pipeline construction and related activities.

Since it is the announced intention of the federal government to involve territorial residents to the maximum extent possible in construction of the pipeline, it is important that careful appraisal be made of that population. Those territorial residents, who are most in need of wage employment, are the native residents who are of Indian, Eskimo and Métis origin. Most non-native residents in the northern territories are fully employed; they are in the North specifically to work, be they persons born in the territories or those who have come north to work.

In assessment of the impact of construction of a large-diameter gas pipeline on the population of the Mackenzie Valley, the impact on the native population emerges as most significant. An assumption which may be made with respect to involvement of territorial residents in pipeline activities is that the most active government assistance programs relating to employment of local residents will be those concerned with native persons. This will be necessary because there are a number of circumstances mitigating against sustained direct involvement on the part of large numbers of local native residents in pipeline construction, particularly in the early stages, not the least of which are simple laws of demand and supply.

Volume 6 of the study contains information on the population with emphasis on the native population, of the Mackenzie Impact Corridor. This volume provides sufficient information on the local population to enable both policy makers and program managers (responsible for assisting local residents considering taking pipeline and related work) to have as much information as possible before making definite decisions concerning involvement of the local, and total northern native population. This basic information has also been used in other parts of the total impact study. The terms of reference for the impact study include analysis and consideration of effects and impacts on the population of pipeline construction, operation and maintenance.

The information has been arranged to give, first, a basic back-ground picture of the population, then to project to what extent the local population can and will participate directly or indirectly in pipeline projects. The recently announced Mackenzie Highway construction program will have significant impact on the Mackenzie Valley population, as will

the completed highway (possibly more significant than the Mackenzie pipeline). It is hoped, therefore, that although Volume 6 is intended specifically for use in regard to pipelines it will be equally useful in consideration of highway construction-related and other economic development programs for involvement of local people in what has been designated as the Mackenzie Impact Corridor.

PART 1

Non-Pipeline Population, Labour Force



Part 1

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CHAPTER 1

INTRODUCTION

Purpose and Approach

The purpose of Volume 6 is to provide basic information on the population and labour force of the Mackenzie Valley Impact Corridor. Throughout Volume 6, emphasis is placed on examination of the native population since it is here that efforts will be required to achieve maximum participation in pipeline work.

Part 1 provides a comprehensive compilation of information on the population and labour force of the Impact Corridor for base year 1970 only, and does not attempt to project population or labour force growth beyond the base year. 2 Much of the information is presented in a data-by-settlement format for those settlements within the Corridor. Although primary attention is given to the native population, some comparisons are made between the native and other population groups of the corridor, and also between the corridor native population and the native population of the remainder of the Northwest Territories.

The detailed presentation of Part 1 is necessary when it is assumed that much of the local resident labour force available to work on the pipeline will come from the immediate corridor region. Furthermore, it has been assumed that the material contained in Volume 6 will be required for a variety of purposes by a large number of readers. Therefore, a somewhat statistical approach, in the form of data tabulations has been taken. The population is studied in terms of its demographic characteristics, economic activities and income sources. The labour force components, particularly of the native population, is also given close attention, and is analyzed in terms of skill levels, occupations, employment and associated aspects.

A number of statistical tabulations have been prepared; summary tables appear in the body of the report, supported by rather more detailed and comprehensive tabulations attached as appendices.

Although the native or indigenous population of the Mackenzie Valley is made up of three separate ethnic origins - Indian, Eskimo and Métis - for purposes of the impact study these have been grouped under the heading of "native", while all non-native (origin) persons have been grouped under the heading of "non-native".

The analysis presented in Volume 6, and data on which it is based, are used to predict the course of development and activities and effects of pipeline construction and operation in Volume 7.

Therefore, no attempt is made in Volume 6 to project population or labour force growth beyond the base year of 1970.

Sources of Data

Researchers and government policy makers have long had difficulties in obtaining reliable and current population data for the North. Statistics Canada census data have not been adequate for a variety of reasons, insufficiency and out-datedness being the chief draw-backs.

In an effort to overcome the serious problem of lack of useful data for use by policy makers, researchers and administrators, the Department of Indian Affairs and Northern Development inaugurated a northern manpower survey program in 1967 with a test survey in the Great Slave Lake region (Economic Staff Group, 1967). Following extensive program development resulting from the Economic Staff Group test survey, the formal survey program was begun in the Keewatin Region in January, 1969 (Economic Staff Group, 1969). The survey was designed to provide basic demographic data and detailed information on education, work history, skill levels and income of northern residents. Four separate surveys were made in the Northwest Territories, each one covering a single region, and all using the same questionnaire and data processing techniques. The first three surveys covered the predominantly Eskimo-populated Eastern and Central Arctic Regions. The fourth and final survey, the Mackenzie Manpower Survey, was conducted in November-December, 1970, covering the 12-month period October 1, 1969 to September 30, 1970. This survey differed from the others in that it was intended to cover the entire population of the Mackenzie District, i.e., not just the Eskimo or native population: this survey provides the primary source of data for the population and labour force analysis presented in Volume 6.

Qualifications of the Mackenzie Manpower Survey

There are, however, several short-comings to this survey which influence the utility of the data. Because the first surveys covered only the Eskimo population, and because there were detailed records readily available to the survey program directors, most of the data on the Eastern Arctic and Central Arctic Eskimos were obtained from records and from knowledgeable informants in the individual settlements, rather than directly from the people themselves. In the case of the Mackenzie Mampower Survey, however, the size and diversity of the population made it necessary to conduct personal interviews. Many people were overlooked, and many refused to give complete information. Many replies were tabulated as "not specified", for people did not remember details. The team conducting the Mackenzie Manpower Survey was also faced with a lack of control data against which to compare survey coverage in any given settlement with some sort of master list of residents.

Table 1

COVERAGE OF THE POPULATION IN THE SETTLEMENTS OF THE MACKENZIE DISTRICT, N.W.T.

BY THE D.I.A.N.D., MACKENZIE MANPOWER SURVEY

1																													
Coverage Survey	Total		54	86	69	100	81	29			34	72	100	78	78	C	08		67	96	53	00	100	73	100	97	26	64	
Percentage Cov by Manpower Su	Non- Native		42	31	48	10	1	41			37	1	100	100	100	1	59		25	20	H	70	ı	1	100	43	38	/,1	T+
Perce by Ma	Native		82	100	71	100	87	89			1	78	100	76	72	1	02		100	100	82	91	100	73	100	57	85	0.7	10
N.W.T. 1970 2/	Tota1		2,700	650	840	06	610	4,890			290	70	300	350	300	ŀ	1,310		750	. 260	550	175	20	65	07	3,000	4,890	000	TT 2030
imates by November,	Non- Native		1,900	200	09	10	07	2,210			270) L	25	20	25		345		450	30	200	30	2	5	9	2,300	3,020	n L	0,0,0
Esti Gov't	Native-		800	450	780	80	570	2,680			20	5.9	275	330	275		965		300	230	350	145	45	09	04	700	1,870	Li Li	CTC * C
Jyage	Total Population		1,466	639	584	96	497	3,282			101	51	382	200	234		1,042		504	252	294	154	50	77	07	1,406	2,744	0	890 6/
Manpower Survey Coverage November, 1970 1/	Total Non-Native Population		804	63	29		1	897			100		7,0	27	35	The state of the s	205		115	15	7	21	I	1	1	1,003	1,158	0	7,260
Manpowe	Total 3/ Native Population		662	576	555	95	767	2,385	provide and passage and passage		_	- H + L + L + L + L + L + L + L + L + L +	333	753	199	Anni Barrell and service	837		389	237	290	133	. 50	77	07	403	1,586	0	4,808
	Impact Corridor	Lower Mackenzie Region	Inuvik	Aklavik	Ft. McPherson	Arctic Red River	Tuktoyaktuk 5/	Total Region		Central Mackenzie Region	/9 Norman Mo11 6/	Norman wells —	COLVILLE LAKE	rt. Franklin			Total Region	Upper Mackenzie Region	Ft. Simpson		Ft. Providence 2/	Ft. Wrigley	Jean Marie River	Nahanni Butte	Trout Lake	Hay River	Total Region		Total Impact Corridor

Table 1 (cont'd)

		Mannower Survey Co. November, 1970	70 1/	Gov't	Gov't November,]	1970 2/	by 1	by Manpower Survey	rvev
	Native3/	Non-5/	Total	Native4/	Non- Native-	Total	Native	Non-5/	Total
Rest of Mackenzie District									
7. C.	77	85	89	6	100	100	100	85	88
Fortaring	2	53	55	5	45	50	07	100	100
Ministration Resolution	533	65	598	580	100	680	16	65	00
Fort Smith	814	1,120	1,934	500	2,000	2,500	100	56	78
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	34	ı	34	45	1	45	75	100	75
Lac La Martre	167	1	167	165	5	170	100	1	86
Pam Jatuk	75	1	75	09		19	100	ĺ	100
pine Point	116	768	884	100	1,100	1,200	100	70	73
א דוור י רוווג	796	15	811	1,050	100	1,150	92	15	71
T day	99	1	99	40	1	07	100	100	100
Sache Harbour	107	-	118	120	10	130	89	100	06
Save Tota	2	1		10	1	10	150	100	100
	000	1	188	210	10	220	89	1	00
Finacton —) 1	ı	40	20	230	250	ı	1	§
Vellowknife	527	3,667	4.194	500	000,9	6,500	100	62	64
Yellowknife Village	101	1	101	130	ı	130	78	100	78
	3,551	5,784	9,335	3,535	9,701	13,236	100	69	7.1
Total Mackenzie District	8,359	8,044	16,403	9,050	15,276	24,326	92	53	67

Mackenzie Manpower Survey field work done October/November, 1970, survey reference period is October 1, 1969 - September 30, 1970.

N.W.T. Dept. of Local Government, Yellowknife, N.W.T. Source:

Métis population included.

No information available as to where Métis included.

Low or nil response in non-natives derives from refusal to answer. 10 12 17 19 15

Questionnaires lost in mailing.

The sole control for the Mackenzie Manpower Survey, against which the survey coverage could be compared, consisted of settlement population figures prepared by the Northwest Territories Government Department of Local Government in November, 1970. Although no information is available on methods used to obtain these population counts, they are the only figures available with which to compare the Mackenzie Manpower Survey's population results.

Table 1 contains the comparison of the survey results with the population count of November, 1970 made by the Northwest Territorial Government.

The Manpower Survey of the Mackenzie Impact Corridor covered 87 per cent of the native population, 41 per cent of non-native population for an overall total coverage of 64 per cent. Manpower survey coverage was consistently low for the non-native population group throughout the whole of the Mackenzie. Within the Impact Corridor, the major settlements with the poorest coverage of non-natives were Tuktoyaktuk and Fort Providence where outright refusals to participate in the survey occurred, largely by territorial and federal government employees, and resulted in the low rate of response.

Because questionnaires were lost in the mail, there is no data on the native population of Norman Wells, (a direct impact settlement), and a low rate of return on the non-native population of the settlement.

Because of the unfortunately low coverage of non-natives by the Mackenzie Manpower Survey, it has been necessary to circumvent the problem in a number of ways. Volume 6, for example, examines in some detail the population of the Mackenzie Impact Corridor, but it has not been possible to present as thorough a comparison between the native and non-native groups as would be desirable. For Volume 7, which gives population and labour force projections for various phases or periods of the overall pipeline construction program, it has been necessary to develop an estimated population figure for the non-native population in the Impact Corridor. However, insufficient data were available to allow estimations by age groups or by individual settlement within the corridor.

The low rate of response for the non-native group in the Mackenzie Manpower Survey also created difficulties in the economic base analysis and cost-benefit and impact multiplier analyses contained in Volume 7. These difficulties arose partly from the high rate of refusal by non-natives to participate in the survey and to some extent from neglect by many participants to respond to questions on income sources, amounts, employers, type of work and other related information.

^{1/} Non-native - anyone not of Indian, Eskimo or Métis origin.

Therefore, although 41 per cent of the total non-native population of the corridor is reported as having been covered $\frac{1}{}$, in fact coverage on those items just mentioned is much lower.

The Mackenzie Manpower survey achieved an estimated 87 per cent coverage of the corridor native population. Of the 13 per cent not covered, some refused to participate in the survey, others were missed, (usually through being absent from the settlements at the time of the survey). Still other information on natives was inadvertently lost, for example, Norman Wells. The most important single failure of the Mackenzie Manpower Survey occurred in the area of information on hunting, trapping and fishing activities. As indicated in Volume 5, the Mackenzie Manpower Survey is estimated to have covered only about one-third of those natives who actively pursued traditional activities. It has been necessary, therefore to seek other sources, such as the N.W.T. Fur Traders Record Books, to obtain information on the significance of hunting and trapping as sources of income. Another serious information gap occurred through the survey's failure to obtain firsthand information on income from social welfare programs. This problem has been partially overcome by obtaining material for the same period from the Government of the N.W.T. reflecting total figures by program on a settlement-by-settlement basis.

The Mackenzie Manpower Survey, despite its drawbacks, still provides the best available, indeed the only available, sources of data for analyzing the population and labour force presented in this and other volumes of the impact study. Unless otherwise specified, therefore, the Mackenzie Manpower Survey is the primary source of data for the material on the corridor population and labour force presented in Volume 6.

The survey must at all times be regarded as providing a picture based on a sample survey. As noted above, only 41 per cent of the non-native population group of the corridor was covered by the survey, a factor of which readers must be aware throughout Volume 6. Nevertheless, it has been deemed sufficiently important to use the data on non-natives, despite the limited sample, in order to give some indication of the relative positions of the two population groups in the economy of the Impact Corridor. A coverage of 87 per cent of the corridor native population has been considered sufficiently high to permit as detailed as possible an analysis of the various characteristics of the native group.

Many non-natives answered only sufficient questions on the questionnaire to allow them to be tabulated in the basic demographic tables; substantial numbers of non-native persons answered all questions except those on income. The variations were numerous and resulted in much information being lost.

Table 2

PERCENTAGE BREAKDOWN OF THE ETHNIC ORIGIN OF THE NATIVE POPULATION

OF THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

	Treaty Indian	Non- Treaty Indian	Total Indian Population	Eskimo	Métis
Lower Mackenzie Region	Per-	Per-	Per- cent	Per-	Per-
Lower Mackenzie Region	cent	cent	cent	Cent	Cent
Inuvik	10.6	2.4	13.0	80.2	6.8
Aklavik	23.9	0.2	24.1	56.3	19.6
Ft. McPherson	87.2	2.3	89.5	1.8	8.7
Arctic Red River	81.0	1.1	82.1	_	17.9
Tuktoyaktuk	2.2	0.2	2.4	97.6	9.4
Total Region	32.7	1.3	34.0	56.6	9.4
Central Mackenzie Region					
Norman Wells	N/Av	N/Av	N/Av	N/Av	N/Av
Colville Lake	94.1	2.0	96.1	_	3.9
Ft. Franklin	94.6	2.4	97.0	_	3.0
Ft. Good Hope	81.4	13.5	94.9	_	5.1
Ft. Norman	69.3	13.6	82.9	-	17.1
Total Region	84.5	8.3	92.8	-	7.2
Upper Mackenzie Region					
Ft. Simpson	86.6	5.4	92.0	0.5	7.5
Ft. Liard	94.9	0.9	95.8	_	4.2
Ft. Providence	96.9	2.8	99.7	-	0.3
Ft. Wrigley	100.0	-	100.0	-	-
Jean Marie River	98.0	_	98.0	-	2.0
Nahanni Butte	100.0	_	100.0	_	-
Trout Lake	100.0	_	100.0	_	
Hay River	44.1	10.7	54.8	-	45.2
Total Region	81.1	4.7	85.8	0.1	14.1
Total Impact Corridor	57.7	3.7	61.4	28.1	10.5

Source: DIAND, Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 1.



CHAPTER 2

THE POPULATION OF THE IMPACT CORRIDOR

Ethnic Origin 2/

The Mackenzie District of the Northwest Territories has an ethnically heterogeneous population, particularly within the native group. The native population of the Mackenzie Pipeline Impact Corridor is comprised of Indian, Eskimo and Métis elements of whom persons of Indian origin form the majority. (See Table 2 and Appendix 1).

Possibly significant to the schedule for pipeline construction, in view of the possible emergence of the land rights settlement question, is the high representation of Treaty Indians in the corridor. Treaty Indians form 58 per cent of the total native population of the corridor; 94 per cent of the total corridor Indian population, according to the Mackenzie Manpower survey which is estimated to have covered 87 per cent of the corridor native population.

The non-native population group forms 32 per cent of the total corridor population covered by the Mackenzie Manpower Survey. The largest concentrations of this group are in Inuvik and Hay River.

Age Structure

The native population of the Impact Corridor is a relatively young population, with 46 per cent under 14 years of age as compared to 37 per cent for non-natives. The relative positions of the two populations by age-group break-downs are presented, as absolute numbers, in Tables 3 and 4, with the percentage summary given in Table 5. Within the corridor as a whole, the largest proportion of the native population is in the 0 - 13 years age group, but that concentration, largest proportion for the non-natives is in the 14 - 44 age group; this latter age-group is usually defined as the prime labour force group. (See also Appendix 2 which presents a detailed break-down by four-year age groups, and by sex, settlement and region within the corridor for natives and non-natives, as shown by the Mackenzie Manpower Survey.)

^{1/} For purposes of the impact study, groups have been identified as "native" and "non-native" populations. Information on non-natives, although only 41 per cent sample for the corridor, has been included for comparison.

^{2/} In the Mackenzie Manpower Survey, each person surveyed declared his/her own ethnic status.

 $[\]frac{3}{2}$ Settlement of possible land claims under Treaties 8 and 11.

An estimate of the total corridor non-native population has been made for purposes of analysis carried out in Volume 7. This figure, 4,520, would mean that non-natives would form 48 per cent of the total corridor population. Boosting the native population by 13 per cent, to include the estimated numbers of persons missed by the Mackenzie Manpower Survey would give a total native population of 5,435. On this basis, the native component forms 55 per cent of the total population, the non-native group 45 per cent.

Table 3 $\frac{1}{1} /$ SUMMARY OF AGE DISTRIBUTION OF NATIVE POPULATION IN SETTLEMENTS OF MACKENZIE IMPACT CORRIDOR, N.W.T.

		Male	le			Female	le	
	0 - 13 years	14 - 44 years	45 years and over	Total	0 - 13 years	14 - 44 years	45 years and over	Total
Lower Mackenzie Region								
T	OR L	1/1	30	321	162	142	37	341
Inuvik Ak lavik	147	104	35	286	137	114	39	290
Ft. McPherson	120	110	39	269	130	115	41	286
Arctic Red River	17	25	11	53	14	19	6	42
Tuktoyaktuk	125	106	36	267	112	86	32	730
Total Region	559	486	151	1,196	555	476	158	1,189
Central Mackenzie Region								
					4 / 10	NT / A	M / A	M / Ass
Norman Wells Colville Lake Ft. Franklin	N/Av 6 80	N/Av 13 63	N/Av 8 27	N/Av 27 170	N/AV 5 80	N/AV 12 62	N/AV 7 21	24 163
Ft. Good Hope Ft. Norman	51	44	26	125	70	38	16	170
Total Region	181	168	78	427	183	160	99	607
Upper Mackenzie Region								
Ft. Simpson	888	78	32	198	92	73	26	191
Ft. Liard	26	61	20	137	50	35	15	100
Ft. Providence	92	67	26	151	00 0	49	77	139
Ft. Wrigley	21	27	21	69	27	77	10	40 70
Jean Marie River	10	6	9	25	7.7	01	o ~	66
Nahanni Butte	9 1	6 1	~ 0	22	12	0 1	t <	27
Trout Lake	- 00	10	7 00	15 717	T0	69	27	189
Hay River	88	80	29	+T7	00			t i
Total Region	353	329	153	835	364	276		/51
Total Impact Corridor	1,093	983	382	2,458	1,102	912	335	2,349
1/ Rased on 87 nercent sample of corridor	mple of corri	native	population.					

 $\underline{1}$ / Based on 87 percent sample of corridor native population.

Source: DIAND, Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 1.

SUMMARY OF AGE DISTRIBUTION OF THE NON-NATIVE POPULATION IN SETTLEMENTS OF THE MACKENZIE IMPACT CORRIDOR, N.W.T.

Table 4

		Male	le			Female	ale	
	0 - 13 years	14 - 44 years	45 years and over	Total	0 - 13 years	14 - 44 years	45 years and over	Total
Lower Mackenzie Region								
Inuvik	161	218	48	427	135	199	43	377
Aklavik	10	16	12	38	7	15	9	25
Fort McPherson	7	7	Н	15	2	10	2	14
Arctic Red River	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av
iarcyartar	AV IV	N/WA	IN/AV	IN/ AV	N/AV	IN/ AV	IN/ AV	IN/AV
Total Region	178	241	19	480	141	224	51	416
Central Mackenzie Region								
Norman Wells	26	24	00	58	14	23	7	42
Colville Lake	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av
Fort Franklin	12	13	2	27	6	13	1	22
Fort Good Hope	2	9	Η	6	5	9	П	12
Fort Norman	6	6	3	21	9	9	2	14
Total Region	67	52	14	115	34	48	00	90
Upper Mackenzie Region								
Fort Simpson	27	28	m	58	22	24	11	57
Fort Liard	5	4	-	10	 1	4	0	5
Fort Providence	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av
Fort Wrigley	2	5	1	10	7	7	1	11
Jean Marie River	1	1	ı	1	I	1	1	ı
Nahanni Butte	1	1	1	1	1	1	i	1

1/ Based on 41 percent sample coverage of non-native corridor population.

484 557

54 65

258 290

172

519 597

255 292

191

228

202

1,063

124

562

377

1,192

152

585

455

Total Impact Corridor

Total Region

Trout Lake Hay River Source: DIAND, Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 1.

PERCENTAGE AGE DISTRIBUTION OF THE POPULATION GROUPS IN SETTLEMENTS OF THE MACKENZIE

Table 5

IMPACT CORRIDOR, N.W.T.

	Nati	Native Population_1/	1/	Non-Native	Non-Native Population $\frac{2}{}$	
	0 - 13 years	14 - 44 years	45 years and over	0 - 13 years	14 - 44 years	45 years and over
	percent	percent	percent	percent	percent	percent
Lower Mackenzie Region						
Inuvik	47	43	10	37	52	11
Aklavík	65	38	13	22	67	29
Ft. McPherson	45	77	14	31	59	10
Arctic Red River	33	94	21	N/Av	N/Av	N/Av
Tuktoyaktuk	48	38	14	N/Av	N/Av	N/Av
Total Region	47	40	13	36	52	12
Central Mackenzie Region						
Norman Wells	N/Av	N/Av	N/Av	40	47	13
Colville Lake	22	64	29	N/Av	N/Av	N/Av
Ft. Franklin	48	38	14	43	53	7
Ft. Good Hope	43	38	19	33	57	10
Ft. Norman	42	41	17	43	43	14
Total Region	777	39	17	40	67	11
Upper Mackenzie Region						
Ft. Simpson	97	39	15	.43	45	12
Ft. Liard	45	40	15	40	53	7
Ft. Providence	50	34	16	N/Av	N/Av	N/Av
Ft. Wrigley	36	41	23	57	43	ŀ
Jean Marie River	77	38	18	ı	1	í
Nahanni Butte	41	34	25	***	1	1
Trout Lake	42	42	1.5	1	í	ı
Hay River	45	39	16	36	51	13
Total Region	45	38	17	37	50	13
Total Impact Corridor	97	39	15	37	57	12
	C#04 LO 30 04	0 + 0 + 0 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +	0 40;40[Footrador		

1/ Based on sample coverage of 87 percent of native population of corridor. 2/ Based on sample coverage of 41 percent of non-native population of corridor. Source: DIAND, Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 1.

Table 6

DISTRIBUTION OF NATIVE AND NON-NATIVE FAMILIES BY SIZE IN SETTLEMENTS OF THE MACKENZIE IMPACT CORRIDOR, N.W.T.

	COLUMN TITE	11101 00	militipoli,	IA • M • T •				
		N	ative			Non	-Native	1/
		Fam	ily Siz	e		Fam	ily Siz	е
Lower Mackenzie Region	1	2-5	<u>6</u> +	Total	1	2-5	6 +	Total
Inuvik	42	33	56	131	133	129	34	296
Aklavik	20	41	45	106	12	15	2	29
Ft. McPherson	70	56	39	165	11	4	1	16
Arctic Red River	18	15	4	37	N/Av	N/Av	N/Av	N/Av
Tuktoyaktuk	13	33	44	90	N/Av	N/Av	N/Av	N/Av
Total Region	163	178	188	529	156	148	37	341
Central Mackenzie Region								
Norman Wells	N/Av	N/Av	N/Av	N/Av	10	23	2	35
Colville Lake	3	13	1	17	N/Av	N/Av	N/Av	N/Av
Ft. Franklin	4	18	33	55	9	5	3	17
Ft. Good Hope	27	31	17	75	5	5	_	10
Ft. Norman	11	20	15	46	3	7	1	11
Total Region	45	82	66	193	27	40	6	73
Jpper Mackenzie Region								
Ft. Simpson	51	41	23	115	10	21	6	37
Ft. Liard	26	25	15	66	_	3	2	5
Ft. Providence	26	33	19	78	N/Av	N/Av	N/Av	N/Av
Ft. Wrigley	27	11	8	46	1	2	2	5
Jean Marie River	3	2	5	10	~~	_	***	-
Nahanni Butte	2	6	2	10	_	_	webs	
Trout Lake	3	5	2	10	_	_	****	-
Hay River	26	41	24	91	95	196	40	331
Total Region	164	164	98	426	106	222	50	378
Total Impact Corridor	372	424	352	1,148	289	410	93	792

^{1/} Based on the 41 percent sample of non-natives in Manpower Survey.

Source: DIAND, Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 5.

Family Structure

There are fairly marked differences between the two groups in terms of family size. Table 6 shows that the most noticeable difference occurs in the numbers of families of six or more persons, 12 per cent for non-natives as compared to 31 per cent for natives. The numbers of natives having large families becomes important in the light of possible planned movement of native families to places of work away from their home settlements. However, it is somewhat surprising to note the relatively small difference between the two groups in the number of single-person families (i.e., single persons living alone in homes, apartments or hostels). It is generally assumed that a large number of non-natives would be single, essentially transients. In the Impact Corridor, however, 32 per cent of the native family groups are singleperson units as compared to 36 per cent for the non-native group. In contrast, in the Keewatin Region, families of two or less persons made up only 17 per cent of the native (Eskimo) population (Preston, 1969: 3, 5). A tabulation of family sizes by individual corridor settlement is given in Appendix 3.

Basic Education

Over the past two decades, programs for increased participation in the skilled labour force by northern native residents have been hampered because of a generally low level of basic education. Many northern native residents, particularly in the Central and Eastern Arctic, had never been to school; many were unable to speak English, or had only a rudimentary command of the language, insufficient to permit them to develop skills beyond those of a general labourer. Within the Mackenzie Valley, however, the native population generally (particularly in the Upper and Lower Mackenzie Impact Regions) had more contact with non-native residents, with schools and with wage employment situations. As a result, general skill levels among the Valley native population are generally higher than among the predominantly Eskimo population of the central and eastern N.W.T.

Nevertheless, the basic formal education level for the native group of the Impact Corridor is relatively low. In order to increase their participation in the highly skilled labour force, many more native people will have to secure additional education and training. Although relevant work experience will be the criterion for general pipeline construction work, deficient basic education will restrict native workers' opportunities to obtain jobs in the highly skilled aspects of pipeline construction, operation and maintenance.

Table 7 and 8 summarize the levels of basic education of the native and non-native groups in the Impact Corridor. The native population is essentially poorly educated. For example, 37 per cent of the native population aged 14 years and over had never attended school, compared to only three per cent of the non-native group.

Completion of grade 10 is the minimum requirement for entrance to many types of trades training courses. Completion of each year beyond grade 10 permits access to increasingly higher levels of formal trades and other types of training. Only four per cent of the corridor native population aged 14 years and over had completed school beyond grade 10 to 13, as compared to 70 per cent of the non-native population (Tables 7, 8). Only five per cent of the native population had completed grade 10 or 11, only two per cent had gone as high as grade 12 or 13. In sharp contrast, 42 per cent of the non-native population had grade 10 or 11, 52 per cent had grade 12 or 13.

It is interesting to note that educational background is the first instance of significant regional differences in characteristics of the native population of the Impact Corridor. In the Lower Mackenzie Region, nine per cent of the native population 14 years of age and over had completed grade 10 or higher, as compared to six per cent in the Upper Mackenzie Region and only three per cent in the Central Mackenzie Region.

The generally low levels of basic education, coupled with lack of relevant work experience among the native population, could well hinder plans to insist on high participation of natives, at least in the initial stages of direct pipeline construction work. As is evident in Chapter 5 in which the qualifications of the corridor native (experienced) labour force are examined, many of them have been able to acquire training only at the level of semi-skilled tradesmen, for example, electrician's helpers. This is particularly true of those persons over 25 years of age. As a result there is a large number of people possibly capable of acquiring jobs in semi-skilled categories, and in activities ancillary to direct pipeline construction, but very few workers will be able to acquire the highly skilled jobs.

Mobility

The ability and willingness of individual northern natives to relocate to areas of guaranteed employment to jobs has long been a source of difficulty. Many researchers have studied this problem as a sociological and cultural one², hence the subject is not treated in detail here. It should be clear from the amassed experience over 20 years of government administrators in the North that the mobility factor is one which must be given close attention when planning the mass relocation of native workers. Stevenson (1968) studied the problems in relation to movement of Eskimo workers to mining and other jobs both in the North and elsewhere. The chief problems which arise are: fears of unknown

In comparison to the Keewatin Eskimo population, however, the native population of the Mackenzie Impact Corridor is more highly educated. In the Keewatin, 55 per cent of the males and 56 per cent of the females 14 years of age and over had attended school; only nine per cent of the total Keewatin Eskimo population had reached Grade 6 or higher (Preston 1969:7).

^{2/} See Part 4, Appendix 1.

Table 7

NATIVE RESIDENTS 14 YEARS OF AGE AND OVER BY HIGHEST GRADE OF ELEMENTARY OR SECONDARY

SCHOOL COMPLETED FOR SETTLEMENTS OF THE MACKENZIE IMPACT CORRIDOR, N.W.T.

					Male									Female	411			
	Never	75	Kind.	10	Grades	~	Hnknown		Total	Never	r	Kind. Grade	1 6	Grades	~	Unknown	H	otal
	No.	8	No.			16	No.			No.	2	No.	2		12	No.		
Lower Mackenzie																		
Inuvik	33	19	66	58	31	18	∞	5	171	35	20		67	15	∞	6	S	179
Aklavik	54	39	7.5	54	7	5	\sim	2	139	43	28		62	12	∞	3	2	153
Ft. McPherson	58	39	80	54	11	7	1	ı	149	59	38	87	56	6	9		1	156
Arctic Red River	11	30	20	56	2	9	m	∞	36	∞	29		43	7	77	7	4	28
Tuktoyaktuk	94	32	79	56	16		_	part	142	37	31		09	10	6			118
Total Region	202	32	353	55	67		15	2	637	182	29	385	61	20	∞	17	2	634
Central Mackenzie																		
Norman Wells	N/AV	N/Av	N/AV	N/AV	N/AV	N/AV	N/Av	N/Av	N/AV	N/AV	N/Av	N/Av	N/AV	N/AV	N/Av	N/Av	N/AV	N/Av
Colville Lake	11	52	6	43	1	1		5	2.1	11	58	00	42	ı	ŧ	ı	ł	19
Ft. Franklin	35	39	94	51	9	7	~	3	06	3.2	38	47	57			3	77	83
Ft. Good Hope	32	43	32	43		Ţ	6	12	74	31	77	28	40	3	7	00		7.0
Ft. Norman	24	39	32	53	2	~	~	5	6.1	23	42	29	54	2	7		ı,	54
Total Region	102	41	119	67	6	7	16	9	246	26	43	112	67	9	3	11	2	226
Upper Mackenzie																		
Ft. Simpson	51	46	42	38	12	11	S	5	110	67	50	41	41	7	7	2	C-1	66
Ft. Liard	51	63	28	35	2	2	ı	ı	81	29	5.00	19	38	2	7	ı	1	20
Ft. Providence	34	45	28	3.7	7	6	9	8	7.5	25	35	41	28	_		7	9	7.1
Ft. Wrigley .	35	73	13	27	1	1	ı	ı	48	19	51	18	67	ı	1		1	37
Jean Marie River	_	7.47	5	53	~	1	ł	1	15	5	38	7	54	ì	ı	_	∞	<u> </u>
Nahanni Butte	2	31	œ	50	ı	1	~	6 [16	·	20	\sim	30	ŀ	ł		20	10
Trout Lake	<u></u>	42	2	42	1	1	C 1	16	12	œ	73	_	5	1	ŀ		00	11
Hay River	32	26	82	44	6	7	C.1		125	100	1 9	6.5	67				m	96
Total Region	220	97	211	77	33	7	$\frac{1}{\infty}$	~	482	158	41	195	20	2 1	5	14	à	387
Total Impact Corridor	524	38	683	0.5	109	∞	65	7	1,365	437	ω ις	692	5.5	77	ç	7.5	3	1,247

DIAND, Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 9. Source:

Table 8

NON-NATIVE RESIDENTS¹/14 YEARS OF AGE AND OVER BY HIGHEST GRADE OF ELEMENTARY OR SECONDARY

SCHOOL COMPLETED FOR SETTLEMENTS OF THE MACKENZIE IMPACT CORRIDOR, N.W.T.

		Total			242	21	12			275		28		13	7	∞	56		35	7		47	1	1	ı	312	355	989
		DWD.	0		m	14	1			7		1	1	1	1	ı	1		ı	i		1	j	1	ı		1	2
		Unknown			7	3	i			10		1	1	1	ł	1	1		ŧ	ı		1	ı	ı	1	2	2	12
1e	es	13	0		69	52	84	able	able	89		82	!	69	100	7.5	80		75	100)le	75	1	1	1	74	74	72
Female	Grades	100			166		10	Available	Availa	187		23	1	6	7		45		26		Available	3	1	ı	1	230	263	567
	F	6	0/		24	19	00	Not		23		14	1	31	ŀ	12	16		14	1		25	ŀ	1	ı	24	23	23
	Kind.	Grade			29	7				79		7	ı	7	ı		6		2	t		—	1	1	ı	76	82	155
		pa d	2		7	14	00		1	5		7	1	1	1	12	7		11	ı		ł	1	1	1		2	m
	Never	Attended			10	3				14			ı	1	ı	ı	2		7	ı		1	ı	ı	ŧ	7	∞	24
		Total	4 !	,	566	28	00			302		32	ı	15	7	12	99		31	7		2	1	ı	ı	328	369	737
		nwn 2			~	11	1			7		ı	ı	1	t	1	ı		1	ı		ı	1	ı	ı		,1	2
		Unknown		(∞	3	1			1.1		ı	ı	ı	1	1	I		1	1		1	ı	ı	1	4	7	15
	es	13		(7/	71	100	ble	ble	73		81	1	80	98	75	80		89	09	ble	100	1	ı	1	63	79	69
Male	Grades	10 N			161	20	∞	Available	Available	219		26	1	12	9	6	53		21	~	Available	5	ı	1	1	206	235	507
	1	e 9		(7.7	14	ı	Not A	Not A	20		19	t	13	ě	25	17		22	04	Not A	ţ	1	ı	1	34	32	26
		Grade		l	200	7	ŀ			62		9	1	2	ı	2	11		7	2		ı	1	I	1	110	119	192
	i.	ided %		(\sim	7	1			3		ı	1	7	14	1	∞		10	ı		I	1	I	1	2	3	2
	Never	Attended No. %		(7	-	ı			10		1	1	1	Н	1	2		2	1		ı	ı	1	1	∞	11	23
			Lower Mackenzie	-	Inuvik	Aklavik	Ft. McPherson	Arctic Red River	Tuktoyaktuk	Total Region	Central Mackenzie	Norman Wells	Colville Lake	Ft. Franklin	Ft. Good Hope	Ft. Norman	Total Region	Upper Mackenzie	Ft. Simpson	Ft. Liard	Ft. Providence	Ft. Wrigley	Jean Marie River	Nahanni Butte	Trout Lake	Hay River	Total Region	Total Impact Corridor

41 per cent sample of non-natives in Corridor by Manpower Survey. 1/ Source: DIAND, Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 9.

places; separation from families (not just immediate families, but more extended family relations); unfamiliarity with the new milieu; and confusion on the part of the wives placed under new and totally different circumstances.

It is reasonable to believe that persons who have a history of mobility, even within their regions, might be more likely candidates for re-location. There are no set methods for determining this, however, and such re-location is usually done on a trial and error basis. Deprez (1972) analysed the mobility of native employees of Pine Point Mine and found that some of the problems mentioned in the preceding paragraph deterred the natives of Fort Resolution, Hay River and Fort Smith from either taking, or remaining on jobs at the mine.

One long standing factor which hindered stabilization of the mine's native work force was the lack of communication between Pine Point and Fort Resolution due to extremely poor road conditions. Many married men tried to work at Pine Point, but were unable to bring their families and eventually left the job to return home. The situation was exaggerated by the fact that in Fort Resolution there were many single men, and the married men were most unhappy in contemplation of their wives being left at home alone during their work week at Pine Point (Deprez, 1972).

Mobility in itself is a particularly difficult factor to measure accurately. The Mackenzie Manpower Survey attempted to obtain some information on the movements of the respondents for a period of seven years preceding the survey reference year (October 1, 1969 - September 30, 1970). The results are summarized for the whole district covered by the survey and presented in Table 9.

It is abundantly clear that the non-native population is far more mobile than the native population. Seventy-six per cent of the total district native population 14 years of age and over had lived only in one place, as compared to 26 per cent of the total non-native population. Only two per cent of the total native population had lived in as many as five different places; nine per cent of the non-native population had lived in five different places. Many of those native residents listed as having lived in three or more places were found, upon analysis, to have relatively young persons who had attended school or training courses in settlements other than their home settlement. The non-native persons were, for the most part, found to have moved a number of times in connection with their work.

There is evidence that native residents of the Mackenzie Valley have become somewhat more mobile since 1970 when the Mackenzie Manpower Survey was conducted. However, research on natives' willingness to move away from home to take work will be required before concrete plans for moving large numbers of people to pipeline jobs are finalized.

PERCENTAGE DISTRIBUTION OF POPULATION 14 YEARS OF AGE AND OVER BY NUMBER OF PLACES OF RESIDENCE DURING PERIOD OCTOBER, 1963 - SEPTEMBER, 1970 IN MACKENZIE DISTRICT¹, N.W.T.

Table 9

		Native		Non	Non-Native	
Number of Places	Male	Female	Total	Male	Female	Tota1
1 place	76.3	76.9	76.6	27.9	24.9	26.5
2 places	13.5	13.7	13.6	39.0	41.0	39.9
3 places	6.3	5.7	0.9	18.4	19.9	19.1
4 places	2.6	2.2	2.4	9.1	6.8	0.6
5 places	0.8	1.0	6.0	3.6	3.2	3.4
6 places	0.3	0.3	0.3	1.3	H.3	1,3
7 places	0.2	0.1	0.1	0.4	0.5	0.5
8 places	0.0	0.1	0.02	0.3	0.3	0.3

Whole of region covered by Mackenzie Manpower Survey (see Appendix 1 for list of settlements included). $\frac{1}{1}$

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 6.

CHAPTER 3

INCOME SOURCES OF THE NON-PIPELINE POPULATION

Introduction

The construction of a pipeline will have a noticeable effect on the economic position of those local residents who become associated with pipeline activities. The extent to which the local economy of the Impact Corridor would be affected is examined in detail in Volumes 4, 5 and 7. No attempt will be made in the present volume, therefore, to present an in-depth discussion of the economic base for the corridor population. A limited discussion of the relative income positions of the population groups is given here only to emphasize the differences between the two groups and also to point out the relative importance of various sources of income to the native population.

As is the case elsewhere in Volume 6, examination of the non-native population group must be limited as a result of the low sample (41 per cent) of the total population group provided by the D.I.A.N.D. Mackenzie Manpower Survey. The low coverage of non-natives coupled with the large number of no replies on income questions by this group has rendered income information on non-natives of little value for comparative purposes. Any information on income for either population group, regardless of the size of the sample, must also be regarded as an underestimate, since there were no provisions made in the manpower survey for listing amounts of money greater than \$10,000. This is, anyone reporting having made \$17,000 will show in the category of \$10,000 and over. Nevertheless, it is possible to present a limited analysis of conditions as they relate to income within the corridor.

With two documented exceptions, material presented in this chapter is derived from the D.I.A.N.D. Mackenzie Manpower Survey.

The first exception concerns income on hunting and trapping. As discussed in Volume 5, those parts of the manpower survey pertaining to hunting and trapping are poorly done: people did not remember their incomes; some refused to answer; the survey enumerators in some settlements had no interest in hunting-trapping and did not question respondents closely. The result is that only an estimated one-third of those persons (in the native group) who spend more than casual hours or earn more than pocket money at land-based activities were surveyed. For this reason, total settlement figures for trapping earnings had to be compiled from the N.W.T. Fur Traders' Record Books (see Volume 5).

The other weak area of the manpower survey concerns information on social assistance and welfare payments. Since such recorded information is confidential, it was necessary to attempt to interview the recipients. People do not as a rule keep detailed accounts of welfare payments received; consequently, the majority of those questioned simply

were unable to even estimate what income they had received from social assistance programs. However, the Department of Social Development of the N.W.T. Government supplied consolidated total figures by settlement for the period covered by the survey, thus allowing some indication of the relative position of social assistance within the corridor. Social legislation items such as family allowance payments and pensions have been calculated for the survey population.

From data obtained by the D.I.A.N.D. Mackenzie Manpower Survey, income information was compiled to form earned and unearned categories. Earned income comprises wage/salary employment, hunting, trapping and fishing $\frac{1}{2}$ and self employment (excluding hunting). Unearned income includes income from family allowance payments, old age and disability pensions, and welfare payments $\frac{2}{2}$. The last have been broken down to show income from social assistance (relief) and "other welfare". "Other welfare", which excludes social assistance payments made for economic reasons, is made up of such items as payment of training allowances to persons on courses, assistance for maintenance of dependent children and other essentially non-economic reasons. Table 10 presents a regional summary which gives an order of magnitude of the amounts of money involved (see Appendix 5 for details on specific corridor settlements).

The relative importance of the various sources of income may be seen in Table 11. Income from wage/salary employment is the single most important source of income within the Impact Corridor. For the total population (combined), wage income makes up 92 per cent of all total earned income, 83 per cent of total income (from all sources).

The income source of "self-employment" includes those persons who earned income through work in their own businesses, be those stores, the production of handicrafts, or other activities, but excluding hunters and trappers. Data on private business in the North have always been quite difficult to obtain. The D.I.A.N.D. Mackenzie Manpower Survey was no exception, with extremely poor results from the private sector, largely due to refusal of private entrepreneurs to participate in the survey. Although information obtained by the survey must be regarded as only a small sample of the activities of the self-employed, particularly among non-natives, it is nevertheless interesting to note the relatively low significance of self employment as a source of income within both population groups. As a percentage of either earned income or total income, income from self employment for the native population is consistently below one per cent except within the Upper Mackenzie Region (Table 11). For non-natives, it reaches no higher than eight per cent, (the Upper Mackenzie Region), where it is doubtless accounted for almost entirely within the town of Hay River.

^{1/} Hunting, trapping and fishing as economic activities are analyzed in detail in Volume 5. No attempt is made to treat them in the present volume beyond the analysis necessary in conjunction with analysis of the labour force (see below, Chapters 4, 5).

As indicated in Table 10, below, information on welfare income was obtained from the N.W.T. Government. This information corresponds to the period of the Mackenzie Manpower Survey - October 1, 1969 - September 30, 1970.

INCOME BY SOURCE FOR POPULATION GROUPS. IN THE MACKENZIE IMPACT CORRIDOR, N.W.T Table 10

7	t Corridor	Non-Native	\$5,580,922 350,423	5,931,345	111,709	Ŷ I	111,709	\$6,043,054
Total	Mackenzie Impact Corridor	Native	\$2,445,504	2,779,477	422,681	212,538	206,636	\$3,621,552
	ie Region	Non -Native	\$2,429,654 226,275	2,655,929	54,907	İ	54,907	\$2,710,836
Total	Upper Mackenzie Region	Native	\$ 615,924	708,808	142,874	101,558	338,948	\$ 1,047,756
	zie Region	Non-Native	\$ 551,973	556,973	7,608	1	7,608	\$ 564,581
Total	Central Mackenzie Region	Native	\$ 308,847	45,925	92,090	13,118	36,728	\$ 499,333
	ie Region	Non-Native	\$2,599,295 119,148	2,718,443	49,194	I	49,194	\$2,767,637
Total	Lower Mackenzie Region	Native	\$1,520,733 9,265	183,274	187,717	97,862	75,612	\$2,074,463
		Income Source	Wages/Salaries Self-Employment	Hunting-Trapping $\stackrel{\sim}{-}$ Total Earned Income	Social Legislation	Social Assistance 3/	Other Welfare $\frac{2}{1}$	Total Income

Income breakdown by population group not possible; negligible non-native income. Non-Natives based on only a sample coverage of 41 percent of total non-native population included for comparison purposes only. N.W.T. Fur Traders' Record Books, July 1, 1969 - June 30, 1970. 1/2/2/3/

Department of Social Development, N.W.T. Government, Yellowknife, N.W.T. for October 1, 1969 - September 30, 1970, breakdown by population group not possible; only negligible amounts would be ascribed to non-natives.

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 59-67 except as indicated.

Table 11

PERCENTAGE BREAKDOWN1 OF INCOME BY SOURCE FOR POPULATION GROUPS IN THE MACKENZIE IMPACT CORRIDOR, N.W.T.

	Lower	Lower Mackenzie Reg	Region	Central	Mackenzie	Region	Upper	Mackenzie Region	ion	Total Im	Impact Corridor	
	Native	Non-Native	Total	Native	Non-Native	Total	Native	Non-Native	Total	Native	Non-Native	Total
Wage/Salary as % Total Earned Income	88.8	95.6	93.0	4.98	99.1	94.1	86.9	9.15	90.5	88.0	94.1	92.1
Income from Self-Employment	0.5	4.4	3.0	0.7	6.0	0.8	1.1	8.5	7.0	0.7	5.9	4.3
Income from Hunting as %	10.7	ı	4.1	12.8	ı	5.0	12.0	ı	2.5	11.3	ı	3.6
Total Earned Income 7,	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Social Legislation Income-	52.0	100.0	57.7	6.49	100.0	1.99	42.2	100.0	50.2	50.2	100.0	26.0
as % Total Unearned Income Social Assistance as %	27.1	ł	23.8	9.2	1	00	29.9	I	25.8	25.2	1	22.3
Total Unearned Income Other Welfare Payments as %	20.9	I	18.4	25.9	ſ	24.6	27.9	l	24.0	24.6	t	21.7
Total Unearned Income Total Unearned Income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Wage/Salary Income as 7	73.3	93.9	85.1	61.8	97.8	80.9	58.8	9.68	81.0	67.5	92.4	83.0
lotal income Income from Self-Employment	7.0	4.3	2.6	0.5	6.0	0.7	0.8	8 3	6.2	0.5	5.8	3.8
as % Total Income Hunting Income as % Total	80	ı	3.8	10.0	ı	4.3	8.1	ı	2.3	8.7	ı	3.2
Income from Social Legisla-	0.6	t	4.8	18.4	1.3	7.6	13.6	2.8	5.2	11.7	H. 8	5.5
tion as % Total Income Social Assistance as %	4.7	1	2.0	2.6	ŧ	1.2	9.7	ı	2.7	5.9	ı	2.2
Total Income Other Welfare Payments as 7 Total Income	3.6	ı	1.6	7.3	1	3.5	0.6	ţ	2.5	5.7	ţ	2.1
Total Income Total Earned Income as %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
cd	17.4	1,8	8.5	28.4	1.3	14.1	32.3	2.0	10.4	23.3	1.8	6.6

Each breakdown represents income source as a percentage of the total for each population group, i.e., native wages as percentage of 1/

— native earned income, etc.

2/ Family allowance, old age and disability pensions.

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 59-67, also Volume 6, Part 1, Table 10 above.

Table 12

PERCENTAGE BREAKDOWN OF NATIVE INCOME BY SOURCE
BY SETTLEMENT FOR MACKENZIE IMPACT CORRIDOR, N.W.T.

	Wages & Salaries as % of Earned Income	Earned In- come as % of Total Income	Wages & Salaries as % of Total Income
	per cent	per cent	per cent
Lower Mackenzie Region			
Inuvik	87.2	87.6	76.4
Aklavik	79.1	76.3	60.4
Ft. McPherson	92.4	73.6	68.0
Arctic Red River	98.4	87.0	85.7
Tuktoyaktuk	96.5	86.3	83.3
Total Region	88.8	82.6	73.3
Central Mackenzie Region			
Norman Wells	Informatio	n now available	
Colville Lake	73.9	68.0	50.2
Ft. Franklin	81.3	73.4	59.7
Ft. Good Hope	90.1	61.9	55.8
Ft. Norman	90.3	79.2	71.6
Total Region	86.4	71.6	61.8
Upper Mackenzie Region			
Ft. Simpson	84.4	73.7	62.2
Ft. Liard	64.4	74.5	59.8
Ft. Providence	82.9	55.4	45.9
Ft. Wrigley	79.6	80.2	63.9
Jean Marie River	59.9	62.6	37.5
Nahanni Butte	78.8	86.4	68.1
Trout Lake	ni1	98.7	ni1
Hay River	96.2	66.8	64.3
Total Region	86.9	67.6	58.8
Total Impact Corridor	88.0	76.8	67.5

Source: DIAND, Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 59-67; also Table 10, above.

Despite the assumption that many natives would derive income through production of handicrafts in their own homes, analysis of the Mackenzie Manpower Survey revealed that most handicraft production is done through the medium of government-sponsored handicraft projects or through co-operatives. 1/ In the case of self-employment among the non-natives, until an adequate study can be made of the scope of private entreprise in the North, it can only be observed that on the basis of available data, income from self-employment is of small importance when compared to wage employment.

Native Income by Source

Wage income is the dominant source for the corridor native population, making up 67 per cent of total income from all sources, as compared to only nine per cent for hunting-trapping2/, and six per cent for social assistance (Table 12). Wage income as a percentage of the total native earned income assumes the same relative importance for each of the three Impact Corridor regions. Taken as a percentage of total native income, however, significant regional variations appear. There are also differences in the relative importance of the various sources of income as percentages of total income. For example, it may be noted that within the Upper Mackenzie Region, native wage income as a percentage of (native) total income is far lower than in the other two regions. Income from social assistance, however, forms a considerably higher proportion of total income, (9.7 per cent, in the Upper Mackenzie Region) than it does in either of the other two corridor regions. Within the Impact Corridor, the Lower Mackenzie Region native population appears to have the most favourable overall economic position, if this is assessed from the point of view of the proportion of earned income to total income.

An exact definition of the relative importance of the different sources of income is somewhat difficult because of the necessity of using different sources for the data. Data on hunting income within the settlements and on social welfare program expenditures have been obtained from different sources than those on other income sources e.g., wage employment, which came from the Mackenzie Manpower Survey. However, despite the shortcomings of the data base, one significant fact clearly emerges: social assistance payments (welfare), constitute a far smaller proportion of total native income in the corridor than anticipated. For the corridor, it is 5.9 per cent. This is especially significant when it is realized that 1) there is only an 85 per cent sample of the native population for the corridor; 2) of that sample, accurate information on earnings, particularly wage income, is unavailable for many persons who

Most respondents to the Manpower Survey who listed handicrafts production as a type of work and/or source of income, gave the name of the local co-operative or project as the employer rather than "self".

Income figures used for hunting-trapping income are those obtained from the N.W.T. Fur Traders' Record Books, (Table 9 above), and not those obtained through the Mackenzie Manpower Survey which did not yield good results on hunting-trapping income (see Volume 5).

Table 13

OF NATIVE AND NON-NATIVE POPULATION GROUPS 2 / WITHIN EACH INCOME RANGE BY SOURCE OF INCOME PROPORTION-1/

FOR TOTAL MACKENZIE IMPACT CORRIDOR, N.W.T.

\$10,000 and over	1 23		95.5	1	100.0	96.3	î	95.2
\$10,000 and over	Native Na percent		4.5	1	1	3.7	I	8.4
- 00	Non- e Native		65.0	28.6	100.0	65.3	100.0	2.49
\$4,000 - 9,999	Native		35.0	71.4	ı	34.7	1	35.3
- 01	Non-	CIIC	27.9	ı	28.6	26.1	12.4	20.4
\$1,000 - 3,999	Native	red	72.1	100.0	71.4	73.9	87.6	79.6
\$1 - \$999	Non- Native	percent	20.8	1.3	11.8	16.6	37.2	21.0
\$1 -	Native	per	79.2	98.7	88.2	83.4	62.8	79.0
				, Fishing				
			Wages and Salary	Hunting, Trapping, Fishing	Self-Employed	Earned Income	Unearned Income	Total Income

Percentage breakdown by ethnic origin according to total number of persons in each income group. 1

Coverage on sample basis only; 41 percent of total non-native population; 87 percent of total native population in corridor. 2/

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 25-30.

did not report the amount of wage income received; and 3) total income figures given in Table 10 do not reflect total earned income of all who reported, nor of those who reported earning in excess of \$10,000. It is estimated that inclusion of income figures for all those who reported "not specified", and inclusion of individual income figures on hunting-trapping returns might significantly reduce social assistance as a percentage of total income to as low as 3.5 per cent for the corridor native population.

In the face of the high unemployment rate problem confronting Canada as a whole, and an accompanying increase in welfare expenditures, it is encouraging to note that in the economically underdeveloped North there are areas in which social assistance forms a low percentage of income. 1/ This is not to say that the total income of the native population in the corridor is high. It is well known that much of the native labour force is underemployed and that only limited full-time work is available. Nevertheless, it would appear that significant numbers of corridor residents are managing to earn some form of support. However, this encouraging note must be tempered somewhat when examination is made of the amounts of income received by the majority of the native population.

Income Amounts

Because of the small size of the non-native population group sample, it is not possible to demonstrate the native share of total income within a region or settlement. It is possible to obtain a measure of the differences between the two groups through comparison of the numbers of each group who fall into the various income ranges shown in Table 13. Significant facts to be noticed are: 1) the general grouping of the native population earnings in the two income ranges under \$4,000; 2) the very low native representation in the category \$10,000 and over (also Appendix 5). The low native representation in the higher income categories, and the disparities between the two population groups are further accentuated in Table 14, which shows each population group's share of total income by source.

As might be expected, family income distribution by income range is not significantly different from that of individual residents (Appendix 6). More non-native families than native families show up in the higher income ranges in both the wage employment and earned categories, owing to the general tendency on the part of wives of non-native wage earners to also hold either full or part-time jobs.

The 5.9 per cent figure is for the entire 12-month period October 1, 1969 - September 30, 1970. Seasonal fluctuations change the picture significantly, social assistance usually reaching a high during winter months when casual employment may be limited. In the Delta, however, the seasonal variation may not be as marked as elsewhere in the corridor, especially in recent years when oil exploration during winter months has produced much activity providing wage employment.

Average Incomes 1/

From the results of the Mackenzie Manpower Survey, supplemented by data for trapping income and welfare income2/, approximate average incomes have been calculated as shown in Table 15. Here again, both regional differences and differences between the two population groups show up clearly. It should be noted again that the income figures from the D.I.A.N.D. Mackenzie Manpower Survey given for the non-native group are underestimated. This arises from the fact that no provision was made for listing amounts of income over \$10,000. In the area such as the Mackenzie District of the N.W.T. in which the majority of the non-natives are territorial or federal civil servants, there will be a significant number of persons earning in excess of \$10,000. If the exact amounts were available, the average income figures for the non-native population would be decidedly higher, whereas those for the native group would not change significantly.

Some of the underlying causes of the difference between the two population sectors have been outlined, e.g., relative population sizes, differences in education backgrounds. Other causes, such as differences in skill, work experience and also availability of work, emerge upon examination of such factors as type of work done, and time spent in wage employment.

In-depth analysis of the economic base of the Impact Corridor is presented in Volumes 4, 5, 7 of this report. Only an indication of the various income sources, based on results of the Mackenzie Manpower Survey, is given here.

Trapping: N.W.T. Fur Traders' Record Books; see also Volume 5. Welfare, N.W.T. Government, Yellowknife, N.W.T.

It also must be remembered that only a very small sample of the total non-native population group was given by the Manpower Survey.

9.3 0.0 66.7 10.5

2.9 10.8 7.1 3.7 0.5

31.4 1

0.9

33.3

9.3

11.6

37.5

7.0

Unearned Income Earned Income

1 1

43.1 86.0 92.9 48.6 69.8

Wages and Salaries Hunting-Trapping Self-Employment

1

1:1

40.7

11.5

41.4

5.7

2.4

31.8

0.7

39.8

7.9

12.5

6.74

10.2

41.1

Total Income

Table 14

E AA AN ECCHECO ECCLETO LECCLETO LECCLETO	A d	PERCENTAGE DISTRIBUTION OF NATIVE AND NON-NATIVE POPULATION BY SOURCE OF INCOME AND	STRIBUTION	1/ OF NATIVE	AND NON-N	$\frac{2}{\text{ATIVE}} \frac{2}{\text{POPU}}$	LATION BY	SOURCE OF	INCOME AN	0	
				LOW	ER MACKENZ	IE REGION					
LOWER MACKENZIE REGION		- 1\$	666\$ -	\$1,0	- 00 - 00	0,4\$	- 001	\$10, and	000 over	Inc Not Sp	come
\$1,000 - \$4,000 3,999 9,999			Non-		Non-		Non-		Non-		Non-
\$999 \$1,000 - \$4,000 - \$10,000 3,999 Non- Non- Non- Non- Non-	Income Source	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native
### ### ##############################		per	cent	per	cent	per	cent	pe	rcent	peı	cent
\$1 - \$999	Wages and Salaries	22.8	7.3	41.2	11.7	25.1	47.8	1.2	25.4	7.6	7.8
\$1 - \$999	Hunting-Trapping	49.1	0.09	15.7	í	2.8	20.0	1	ı	32.4	20.0
\$1 - \$999	Self-Employment	52.4	8.7	14.3	4.3	1	13.0	ı	43.5	33,3	30.5
\$1 - \$999	Earned Income	21.6	7.2	41.5	11.4	23.7	46.5	6.0	26.5	12.3	8.4
\$1 - \$999	Unearned Income	77.0	88.6	22.8	10.7	1	0.7	ı	t	0.2	1
\$1 - \$999 \$1,000 - \$4,000 - 9,999 Non- Native Native Native Native Native Percent 22.8 7.3 41.2 11.7 25.1 47.8 1.2 25.4 9.7 49.1 60.0 15.7 - 2.8 20.0 - 43.5 33.3 21.6 7.2 41.5 11.4 23.7 46.5 0.9 26.5 12.3 77.0 88.6 22.8 10.7 - 0.7	Total Income	26.4	10.3	45.8	12.8	19.7	6.44	1.2	26.1	6.9	5.9
\$1 - \$999				CENT	RAL MACKEN	ZIE REGION					
\$1 - \$999											

a per cent of total earners within that source for Earners within each income category by source of income as each population group. 1

Based on sample coverage by survey of only 41 per cent of total non-native population in corridor. 2/

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 25-30. Source:

Table 14 (cont'd)

PERCENTAGE DISTRIBUTION OF NATIVE AND NON-NATIVE POPULATION BY SOURCE OF INCOME AND INCOME CATEGORY, MACKENZIE IMPACT CORRIDOR, N.W.T.

	Income Not Specified Non-	e Native	14.6 85.7 42.3 17.4 0.5	10.3	11.3 58.3 39.8 13.2 0.3	8.1
	In Not S	Native	17.1 24.8 33.3 17.0	8,5	10.8 23.4 25.5 12.3 0.2	9.9
	\$10,000 and over	ro	17.1	17.0	21.8	21.9
	\$10 and	Nativ	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.2	0.9	0.8
NC	\$4,000 - 9,999	erce	39.2 14.3 32.7 38.9	37.7 OR	42.9 16.7 26.9 42.0	8 70.8
UPPER MACKENZIE REGION	€	Nativ	20.0	19.7 13.1 TOTAL IMPACT CORRIDOR	21.4	15.3
UPPER MACK	\$1,000 - 3,999	e Native	19.7 - 1.9 18.2 6.6		15.7 2.6 14.9 8.2	3 16.3
	€9-	Nativ	28.9 5.7 16.7 24.6 31.8	38.5	37.6 8.2 10.7 35.4 27.2	43.8
	\$1 - \$999	Non- re Native percent	9.4 3.9 8.3 92.9	15.3	8.3 25.0 5.1 5.1 7.8	12.9
	€9-	Native	33.7 68.1 50.0 41.9 68.2	39.7	29.3 66.9 63.8 32.8 72.6	33.5
		Income Source	Wages and Salaries Hunting-Trapping Self-Employment Earned Income Unearned Income	Total Income	Wages and Salaries Hunting-Trapping Self-Employment Earned Income Unearned Income	Total Income

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 25-30.

AVERAGE AMOUNTS 1 / EARNED BY RESIDENTS 14 YEARS OF AGE AND OVER BY SOURCE OF INCOME MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

Table 15

	Wage-	e-Salary	Hunting-Trapping	rapping	Self-Employment	loyment	Total Earned	arned
							Income	ne
		Non-		Non- 2/	:	Non-	e de la companya de l	Non-
Lower Mackenzie Region	Native	Native	Native	Native-	Native	Native	Native	Native
Inuvik	\$3,518	6,229	\$2,786	1	\$ 881	6,778	\$3,319	6,252
Aklavik	2,086	6,332	1,780	ł	132	3,767	1,945	6,072
Fort McPherson	2,419	6,162	807	1	102	ı	2,059	6,162
Arctic Red River	3,304	N/Av	76	ı	N/Av	N/Av	2,130	N/Av
Tuktoyaktuk	2,134	N/Av	526	1	374	N/Av	1,920	N/Av
Total Region	2,668	6,233	1,455	1	463	6,271	2,393	6,235
Central Mackenzie Region								
Norman Wells	N/Av	6,750	N/Av	1	N/Av	í	N/Av	6,750
Colville Lake	778	ā	578	ı	25	ţ	069	ı
Fort Franklin	1,303	5,868	455	1	180	5,000	943	5,825
Fort Good Hope	1,852	5,122	527	ı	1	1	1,483	5,122
Fort Norman	3,091	5,867	402	ı	213	1	1,781	5,867
Total Region	1,765	6,202	797	ı	188	2,000	1,241	6,189
Upper Mackenzie Region								
Fort Simpson	2,414	5,486	4,019	1	ı	2,000	2,549	5,413
Fort Liard	1,368	6,447	210	1	340	1	999	6,447
Fort Providence	2,040	N/Av	878	ı	ı	N/Av	1,664	N/Av
Fort Wrigley	1,353	6,575	1,730	ı	ı	ı	1,414	6,575
Jean Marie River	398	ı	585	ı	ı	ı	456	ı
Nahanni Butte	1,363	1	266	ı	1	ł	728	ì
Trout Lake	1	1	593	1	!	ı	593	1
Hay River	2,222	668,7	458	ı	726	4,388	1,959	4,845
Total Region	1,968	666,4	615	1	723	4,351	1,534	4,937
Total Impact Corridor	\$2,134	5,811	\$ 845	l	\$ 459	5,207	\$1,723	5,787

Based on total numbers of males and females listed as having earned income in these categories.

Information on income from trapping obtained from N.W.T. Fur Traders' Record Books, all income assigned to Native as there exists no way to distribute it otherwise. 1/2

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970.



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CHAPTER 4

INCOME PRODUCING ACTIVITIES OF THE NON-PIPELINE POPULATION AND LABOUR FORCE

Definitions

A portion of the total adult population may be defined as the "potential labour force" or "labour force age" population, the upper and lower age limits for which may be set according to whatever standards or criteria are suitable or desired for the particular purpose at hand. When the program formally started in 1969, the D.I.A.N.D. Northern Manpower Survey Program, following the then current practice of Statistics Canada, defined the lower limit of the labour force age population or potential labour force as anyone 14 years of age, deministering the full survey questionnaire to all those 14 and over. No upper limit has been formally set for purposes of the present analysis, although one could arbitrarily set an upper limit of anywhere from 50 to 65 years of age. 2

The "labour force", i.e., the true or actual labour force, forms a portion of the potential labour force. Following standard Statistics Canada practices, the N.W.T. Manpower Survey Program, including the Mackenzie Survey, defined the labour force as those persons who had done one or any combination of the activities of wage employment, hunting-trapping-fishing, self-employment, or looking for work, for not less than 46 weeks of the 12-month period of the particular survey. In the case of the Mackenzie Manpower Survey, this would be not less than 46 weeks in the period October 1, 1969 - September 30, 1970.

In order to better reflect the particular circumstances and conditions prevailing in the North, particularly among the native population, the prime target of the manpower survey program, the standard term of "looking for work" and its definition underwent some modification for purposes of the survey program. "Looking for work", as used by Statistics Canada in its monthly labour force surveys, implies an actual fact or action of "looking for work" or "seeking" work, i.e., that someone went to a Canada Manpower Center, read bulletin boards,

Increasingly often, and certainly more realistically, the lower age limit is defined as 15 years of age, as is done for the analyses carried out in Volume 7 of the impact study. Age 15 is also more easily used for projection and estimation purposes since it is a logical part of the four-year age group system, e.g. 0-4, 5-9, 10-14, 15-19, etc., as used by Statistics Canada and the N.W.T. Manpower Survey Program. Since the number of 14-year olds in the corridor is negligible, and since virtually none of them worked, no conflict arises between use of 14 years as the lower limit in Volume 6 as opposed to 15 years in Volume 7.

^{2/} In volume 7, the active working age population has been defined as that between 15 and 64 years of age.

answered advertisements in newspapers. This definition was found to have little relevance in the North, particularly in the more remote, predominantly native communities of the eastern and central parts of the N.W.T., and to a certain extent among the native population of even the larger centers through the N.W.T. Physically looking for work is difficult in many places. The seasonal nature of much of the work means that there is no work to look for; most of the members of the working age population know this and do not concern themselves with actually going out to ask for work. There is also the tendency on the part of many members of particularly the native population to not so much actively seek work as to be sought - i.e., to wait until the call goes out for workers for, e.g., sealift work, housing construction, seasonal work, etc. The absence of a formal apparatus for placing workers in many of the small settlements makes formal definition of looking for work difficult and somewhat meaningless.

For this reason, the manpower surveys used the terms "without work", which could also be defined as "available for work" to cover the looking for work aspect. All persons who had done any one or a combination of the income-producing activities previously (defined above) for any portion of the year, but had not worked otherwise were classified as "without work". Since the standard definition of labour force includes those looking for work, the manpower survey placed in the labour force those persons above the age of 14, who had done any work in the year and were without work during the balance, and also those able-bodied persons between 14 and 64 years of age who were without work the full 46 - 52 weeks, but were not full-time students, or full-time housewives.

The "potential" labour force or working age population may thus be defined as that portion of the population over 14 (or 15) years of age; the "actual" labour force, however, is more strictly defined, and will comprise a proportion of the potential labour force. For purposes of determining possible sources of labour supply from among the territorial residents for pipeline construction work and other major development activities, it is necessary to assess both the full "potential" labour force population and the strictly defined "actual" labour force.

Involvement in Activities

Many members of the "potential" labour force may work at an activity or combination of activities during the year, but not be part of the labour force. The two most notable examples are students and housewives, who may take part-time jobs or work for a few weeks during the summer or at Christmas, for example. In Appendix 7, the breakdown of activities and the time spent at each by each of the native and non-native population groups have been tabulated by settlement within the Impact Corridor. A summary of Appendix 7 is presented in Table 16. This shows the percentages of each group's "potential" labour force who

Table 16

PROPORTION OF TOTAL POPULATION 1 / 14 YEARS OF AGE AND OVER IN EACH POPULATION GROUP ENGAGED IN INCOME-PRODUCING AND OF THOSE WITHOUT WORK IN MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. ACTIVITIES 2/

	Per Co	Cent of Total	Total No. Engaged in All Within Each Activity	Engaged in All Activities In Each Activity		Engaged	Per Cent of	Cent of Total Population
	Wage Em	Wage Employment	Self-Employment	loyment	Hunting-Trapping	Trapping	14 Nand Ove	14 Years of Age and Over Without Work $\frac{3}{4}$
		Non-		Non-		Non-		Non-
	Native	Native	Native	Native	Native	Native	Native	Native
Lower Mackenzie River	per	percent	perc	percent	per	percent	perc	percent
Inuvik	82.3	95.4	3.6	4.1	14.1	0.5	14.0	4.3
Aklavik	73.8	80.6	3.6	8.3	22.6	11.1	19.3	2.0
Fort McPherson	78.6	100.0	2.3	I	19.1	1	26.1	10.0
Arctic Red River	63.4	N/Av	ı	N/Av	36.6	N/Av	34.4	N/Av
Tuktoyaktuk	86.9	N/Av	1.9	N/Av	11.2	N/Av	28.9	N/Av
Total Region	9.62	94.3	2.8	4.3	17.6	1.4	22.3	4.3
Central Mackenzie Region								
Norman Wells	N/Av	7.76	N/Av	2.3	N/Av	ı	N/Av	1.7
Colville Lake	65.5	1	3.5	1	31.0	ı	42.5	ı
Fort Franklin	58.9	95.0	0.4	ŀ	37.1	5.0	27.2	1
Fort Good Hope	72.1	100.0	1	ł	27.9	ı	26.4	I
Fort Norman	52.1	100.0	10.9	I	37.0	1	32.2	1
Total Region	8.09	97.8	4.8	1.1	34.4	1.1	29.4	0.8
Upper Mackenzie Region								
Fort Simpson	91.5	97.9	ı	2.1	8.4	1	18.2	3.0
Fort Liard	39.0	100.0	2.9	l	58.1	1	2.3	1
Fort Providence	65.7	N/Av	2.9	N/Av	31.4	N/Av	28.8	N/Av
Fort Wrigley	16.7	100.0	I	1	16.7	1	29.4	Ī
Jean Marie River	68.8	1	1	ı	31.2	ı	7 - 1	ı
Nahanni Butte	36.4	1	13.6	ı	50.0	1	11.5	1
Trout Lake	\$	ı	100.0	1	ł	1	8.7	
Hay River	84.8	88.2	2.2	10.6	13.0	1.2	26.7	7.7
Total Region	67.7	89.3	2.4	9.6	29.9	1.1	20.0	7.0

Sample only as provided from results of manpower survey.

Wage employment, self-employment (excluding hunting), hunting-trapping. 1/2/3/3/

Often defined as "looking for work".

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

worked at some one activity or combination of activities during the 12-month Mackenzie Manpower Survey reference period. The two most immediately obvious facts to be noted are 1) the relative proportions of the two population groups within the wage employment category, in which natives run consistently below non-natives, and 2) the exactly reversed situation within the "without work" category.

The analysis of the relative native position is carried further in Table 17, which shows the percentages of the potential labour force in wage employment according to numbers of weeks worked. For the corridor as a whole, the largest proportion of the native population involved in wage employment at any time during the year were in the category of 4 to 24 weeks (47 per cent), while only about 31 per cent were wage employed for 46 - 52 weeks, as opposed to 71 per cent of the non-native group.

Table 18 analyses the numbers of corridor native residents 14 years of age and over who were in the without work category. Natives without work (of any kind) for 46-52 weeks made up nearly 20 per cent of the total population in that category, the largest percentage falling in the 25-52 week category.

Despite the small sample of non-natives in the Mackenzie Manpower Survey, it is evident that most members of the non-native potential labour force were engaged in some income producing activities throughout much of the year. In all probability, this arises from the fact that many non-natives are able to secure part-time work, or full-time work at certain seasons of the year according to peak periods of activity, with either government agencies or private enterprise. A better assessment of hunting-trapping activities among the native population than that provided by the Mackenzie Manpower Survey might possibly reveal that greater numbers of people are working for a greater portion of the year than indicated. However, it is evident that the corridor's native labour force population was working on an irregular or sporadic basis, particularly at wage work. Nevertheless, a significant portion of the native population had worked for wages for at least half the year (Appendix 7).

Non-Pipeline Labour Force

It is assumed that the actual labour force would provide the bulk of those territorial residents likely to become involved in pipeline work, particularly at the initial stages. Therefore, it is important to examine the activities of the labour force, particularly the native labour force, in order to attempt to assess its likely participation in pipeline work.

^{1/} See Volume 5.

Table 17

PER CENT OF NATIVE AND NON-NATIVE POPULATION IN WAGE EMPLOYMENT BY WEEK CATEGORIES

(Based on Mackenzie Manpower Survey Sample) (As Per cent of Total Number Wage Employed) MACKENZIE IMPACT CORRIDOR SETTLEMENTS

	1 - 3	weeks	4 - 24	weeks	25 - 4	5 weeks	46 - 52	2 weeks
Lower Mackenzie Region	Native	Non- Native	Native	Non- Native	Native	Non- Native	Native	Non-
Inuvik	2.2	1,1	29.8	13.5	17.7	12.9	50.3	72 5
Aklavik	8.3	3.5	47.1	13.8	14.9	10.3	29.2	72 4
Fort McPherson	8.7	1	56.3	5.9	14.6	17.6	20.4	76.5
Arctic Red River	ı	N/Av	34.6	N/Av	46.2	N/Av	19.2	N/Av
Tuktoyaktuk	5.0	N/Av	52.5	N/Av	17.3	N/Av	25.2	N/Av
Total Region	5.3	1.2	0.44	13.2	17.7	12.9	33.0	72.7
Central Mackenzie Region								
Norman Wells	N/Av	1	N/Av	11.6	N/Av	4.7	N/Au	83 7
Colville Lake	31.6	ı	63.2		5.2	1		. 1
Fort Franklin	6.9		54.8	1	16.4	26.3	21.9	73.7
Fort Good Hope	9.4		63.6	0.6	6.8	0.6	25.0	81.8
Fort Norman	1	200	42.1	18.8	21.1	1	36.8	81.2
Total Region	7.4	I	54.9	10.1	13.7	0.6	24.0	80.9
Upper Mackenzie Region								
Fort Simpson	12.3	1	35.4	12.8	12.3	% 5.5	40.0	78.7
Fort Liard	2.4	1	73.2	1	6.4	16.7	19.5	83.3
Fort Providence	8.7	N/Av	52.2	N/Av	8.7	N/Av	30.4	N/Av
Fort Wrigley	40.0	1	44.0	1	8.0	14.3	8.0	85.7
Jean Marie River	ı	1	81.8	ţ	9.1	1	9.1	· •
Nahanni Butte	1	1	100.0	ı	ı	I		1
Trout Lake	1	1	1	1	ł	I	}	ı
Hay River	2.6		43.6	22.1	15.4	10.6	38.5	0.99
Total Region	8.3	1.2	49.8	20.6	11.2	10.5	30.7	67.7
Total Impact Corridor	6.5		47.5	16.5	15.1	11.4	30.8	71.0

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Table 18 $\label{eq:per_cent_of_native} \text{Per cent of native population without work$$\frac{1}{}'$} \text{ by week categories,}$

MACKENZIE IMPACT CORRIDOR SETTLEMENTS

(As Per cent of Total Number Without Work)

	1 - 3 weeks	4 - 24 weeks	25 - 45 weeks	46 - 52 weeks
Lower Mackenzie Region	per cent	per cent	per cent	per cent
Inuvik	2.0	28.6	49.0	20.4
Aklavik	_	22.8	45.6	31.6
Fort McPherson	1.3	26.2	66.3	6.2
Arctic Red River	_	77.3	9.1	13.6
Tuktoyaktuk	-	20.0	68.0	12.0
Total Region	0.7	28.3	55.1	15.9
Central Mackenzie Region				
Norman Wells	N/Av	N/Av	N/Av	N/Av
Colville Lake	_	11.8	52.9	35.3
Fort Franklin	****	46.8	46.8	6.4
Fort Good Hope	_	18.4	68.4	13.2
Fort Norman	-	43.2	43.3	13.5
Total Region	-	33.8	52.5	13.7
Upper Mackenzie Region				
Fort Simpson	7.9	26.3	26.3	39.5
Fort Liard	_	33.3	66.7	_
Fort Providence	-	45.2	42.9	11.9
Fort Wrigley	-	28.0	24.0	48.0
Jean Marie River	-	100.0	-	-
Nahanni Butte		100.0	-	-
Trout Lake			100.0	-
Hay River	3.4	28.8	37.3	30.5
Total Region	2.9	33.9	33.3	29.9
Total Impact Corridor	1.2	31.2	48.1	19.5

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

^{1/} Or "looking for work".

The actual or full-time labour force has been defined as a portion of the labour force age or potential labour force population, (pp. 1-40-1-41, above).

The "participation rate", a standard labour force analysis term, is defined as that percentage of the population 14 years of age and over who belong to the full-time labour force. For purposes of the present discussion, labour force is used as defined previously in this chapter. The labour force may be further analysed as follows: those who did one of the activities - wage employment, hunting-trapping, self-employment or were without work - for a minimum of 46 weeks, or a combination of any of these activities for not less than 46 weeks in the preceding 12-month period (October 1, 1969 to September 30, 1970 for the Mackenzie Manpower Survey). Important factors to study are: what proportion of the labour force was engaged in wage employment and to what extent, and what experience does this proportion possess; of those who were in the labour force primarily on the strength of being "able-bodied" although without work, what proportion has potential which might enable those persons to adapt to pipeline work.

Labour Force Size and Participation

In Table 19 (and Appendix 8) the sizes of the labour force for each population group are given for the Mackenzie Impact Corridor. The Mackenzie Manpower Survey provides sample coverage only: 41 per cent for non-natives in the Impact Corridor, 87 per cent for natives. Therefore, figures such as participation rates, particularly for the non-native group are underestimated. Nevertheless, the figures for non-natives have been included in order to provide a basis of comparison.

Virtually all the work in connection with pipeline construction would be done by men, with women having only a very small portion of jobs in ancillary activities. Nevertheless, it is interesting to note the small number of native women in the labour force. In the Lower Mackenzie Region, 22 per cent of the native labour force was female, compared to 32 per cent for non-natives; in the Central Mackenzie the figures are 15 per cent and 21 per cent respectively, 12 and 32 per cent respectively, for the Upper Mackenzie Region. For the Impact Corridor as a whole, native women formed only 7 per cent of the total native labour force, as compared to 31 per cent for non-native females.

Labour force participation rates for the two populations are presented in Table 20. Native participation rates run consistently lower than those of non-natives throughout the Impact Corridor, 40 per cent for natives as opposed to 61 per cent for non-natives. Native female participation rates are consistently low, 14 per cent as compared to 39 per cent for non-native females, and the native rates for the corridor are only 64 per cent as compared to 82 per cent for non-native males. There is very little variation in the native participation rate between the individual regions, whereas there is considerable difference between the native female rates, which range from a low of 10 per cent in the Upper Mackenzie Region to a high of 18 per cent in the Lower Mackenzie Region.

Table 19

SIZE OF THE NATIVE AND NON-NATIVE LABOUR FORCE

MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.1/

		Native			Non-Nati	ve <u>2/</u>
Lower Mackenzie Region	Male	Female	Total	Male	Female	Total
7 (1	125	37	162	210	99	309
Inuvik	74	38	112	23	7	30
Aklavik	87	13	100	8	7	5
Ft. McPherson	25	3	28	N/Av	N/Av	N/Av
Arctic Red River	91	23	114	N/Av	N/Av	N/Av
Tuktoyaktuk	402	114	516	241	113	354
Total Region	402	114	220			
Central Mackenzie Region						
44	N/Av	N/Av	N/Av	31	6	37
Norman Wells	15	2	17	_	apro	_
Colville Lake	58	8	66	14	5	19
Ft. Franklin	40	9	49	6	3	9
Ft. Good Hope		8	52	11	3	14
Ft. Norman	44	27	184	62	17	79
Total Region	157	21	104	02	- ·	
Upper Mackenzie Region						
Ft. Simpson	48	9	57	24	15	39
Ft. Liard	68	3	71	4	1	5
Ft. Providence	49	7	56	N/Av	N/Av	N/Av
Ft. Wrigley	25	2	27	5	2	7
Jean Marie River	8		8	-		_
	14		14	minima.	_	_
Nahanni Butte	10	2	12			_
Trout Lake	95	19	114	267	121	398
Hay River	317	42	359	300	139	439
Total Region	317	42	3.33	300		
Total Impact Corridor	876	183	1,059	603	269	872

¹/ Those who have worked or sought work not less than 46 weeks in 12 months.

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 13.

^{2/} Based on small sample (41 percent) of total non-native population.

Table 20 NATIVE AND NON-NATIVE LABOUR FORCE PARTICIPATION RATE (PER CENT) $\frac{1}{}$

MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. Native Non-Native Lower Mackenzie Region Male Female Total Male Female Total Inuvik 73.1 20.7 46.3 79.3 40.9 61.0 Aklavik 53.2 24.8 38.4 82.2 33.3 61.2 Ft. McPherson 58.4 8.3 32.8 100.0 58.3 75.0 Arctic Red River 69.4 10.7 43.8 N/Av N/Av N/Av Tuktoyaktuk 64.8 19.5 44.2 N/Av N/Av N/Av Total Region 63.2 18.0 40.7 80.1 41.1 61.5 Central Mackenzie Region Norman Wells N/Av N/Av N/Av 96.9 21.4 61.7 Colville Lake 71.4 10.5 42.5 _ _ -Ft. Franklin 64.4 9.6 38.1 93.3 38.5 67.9 54.1 12.9 42.9 Ft. Good Hope 34.0 85.7 64.3 37.5 72.1 14.8 Ft. Norman 45.2 91.7 70.0 Total Region 64.0 11.9 39.1 93.9 30.4 64.8 Upper Mackenzie Region 43.6 9.1 27.3 77.4 42.9 59.1 Ft. Simpson 25.0 Ft. Liard 84.0 6.0 54.2 80.0 55.6 N/Av 65.3 9.9 38.4 N/Av N/Av Ft. Providence 52.1 5.4 31.8 100.0 50.0 77.8 Ft. Wrigley 53.3 50.0 Jean Marie River _ 53.9 87.5 Nahanni Butte 18.2 52.2 83.3 Trout Lake 60.6 38.8 19.8 51.6 81.4 76.0 Hay River 39.1 60.6 41.3 81.3 10.9 Total Region 65.8

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 13.

64.3

Total Impact Corridor

Percent of population 14 years of age and over belonging to the full-time labour force - latter defined as persons working not less than 46 weeks or as looking for work for not less than 46 weeks in a year, or any combination, done for each ethnic group.

14.7

40.6

82.0

39.2

61.3

Labour Force Age Structure

The labour force for the Impact Corridor is broken down by four-year age groups and sex and settlement in Appendix 8. From this summary, presented as Table 21, it is seen that the largest proportion of the labour force fell within the age range of 14 - 39 years of age for both population groups, averaging right around 68 per cent for both, with 32 per cent coming in the over-40 years age group. Within the native group, there were more females represented in the group 14 - 24 years, 47.5 per cent, than there were males, 27.0 per cent. In the group 25 - 39 years, native males made up nearly 40 per cent.

This may have ramifications in terms of potential native employment on the pipeline. Possibly, the rather low native male representation in 14-24 years of age group of the labour force means only that many young men were still in school or training courses. In this case, they would be counted as full-time students and not as part of the labour force. They would be an important part of the potential labour force or labour force age population, and would form a source of supply of workers with suitable training. In view of the concentration of effort by the territorial government in the field of vocational education over the past several years, it is logical to assume that a considerable proportion of young men between 14 and 24 years of age are in fact receiving training.

Since high levels of education and skill training and/or experience are required for many of the direct pipeline construction jobs, it would be natural to expect to draw more heavily from the younger men, those who might have both more training and more inclination to enter pipeline work than older men. However, as discussed more fully in Part 4 of Volume 6, there are also other factors to be taken into consideration, e.g., motivation, attitudes, and adaptation to discipline.

Table 21

	PERCE	E	DISTRIBU	TION1/	DISTRIBUTION ¹ OF NATIVE AND	AND NON-		LABOUR FORCE	ICE BY			
		SPECIFIED	AGE	GROUPS FOR	FOR MACKENZIE	IE IMPACT	CORRIDOR,	OR, N.W.T.	1			
	1	14 - 24 Yea	ears	2	5 - 39 Years	ars	14	4 - 39 Years	ırs	40 1	Years and	Over
	Male	Female per cent	Total	Male	Female per cent	Total	Male	Female per cent	Total	Male	Female per cent	Total
Lower Mackenzie Region												
Native Non-Native Total	28.5 27.3 28.1	43.0 31.9 37.5	31.7 28.7 30.5	41.2 42.5 41.7	28.1 35.4 31.7	38.3 40.3 39.1	69.7	71.1 67.3	70.0	30.3	28.9 32.7 30.8	30.0 31.0 30.4
Central Mackenzie Region	دا											
Native Non-Native Total	24.7 27.4 25.5	48.2 41.2 45.5	28.1 30.4 28.8	44.3	37.0 29.4 34.1	43.2 39.2 42.0	69.0 69.3 69.1	85.2 70.6 79.6	71.3 69.6 70.8	31.0 30.7 30.9	14.8 29.4 20.4	28.7 30.4 29.2
Upper Mackenzie Region												
Native Non-Native Total	26.2 15.3 20.9	59.5 23.7 32.0	30.1 18.0 23.4	36.0	16.7 41.7 35.9	33.7 48.3 41.7	62.2 66.6 64.3	76.2 65.4 67.9	63.8 66.3 65.1	37.8	23.8 34.6 32.1	36.2 33.7 34.9
Total Impact Corridor												
Native Non-Native Total	27.0 21.4 24.7	47.5 28.3 36.1	30.5 23.5 27.4	39.9	26.8 38.3 33.6	37.6 44.2 40.6	66.9 68.2 67.4	74.3	68.1 67.7 68.0	33.1 31.8 32.6	25.7 33.4 30.3	31.9 32.3 32.0

By sex, ethnic origin taken as percentage of total number in each group, i.e., native males 14 - 24 as percentage of total native males in labour force. Small sample only for non-native group. 1

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 13. Source:

Table 22

PER CENT OF NATIVE AND NON-NATIVE LABOUR FORCE ENGAGED IN ONE OF THE FOUR ACTIVITIES $^{\perp}/$ 52 WEEKS, IN THE MACKENZIE IMPACT CORRIDOR, N.W.T. FOR 46 -

Total Number Active¹/_{in Labour Force} For 46 - 52 Weeks as percent of Total Labour Force

	Total	91.8	91.9	85.6	88.6	
	To	6	6	00	80	
Non-2/Native-	Female	93.8	88.2	79.8	86.2	
	Male	6.06	91.9	88 .3	89.7	
	Total	52.4	33.0	65.2	53.5	
Native	Female	83.3	63.0	88.1	81.4	
	Male	43.7	27.8	62.1	47.5	
		Lower Mackenzie Region	Central Mackenzie Region	Upper Mackenzie Region	Total Impact Corridor	

Those who have had either activity 1) wage employment, 2) hunting-trapping, 3) self-employment, or were 4) without work for the full 46-52 weeks. 1/

on sample coverage of only 41 percent of total non-native population by survey. Based 2/ DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 13, 14. Source:

CHAPTER 5

ACTIVITIES OF THE CORRIDOR LABOUR FORCE

Activities of the Labour Force

One of the most difficult tasks facing economists and indeed researchers in all disciplines is assessing or measuring such concepts as "work" and "productivity" among the northern native population. In the North, it is more common than not to find that the native people who put together a full year's (productive, i.e., not on social assistance) work through wage employment are easily categorized. Others may be just as gainfully occupied through a combination of seasonal wage employment, some hunting or trapping, self-employment. And, of course, there are those who pass much of the year without work; and others who pass only a portion of the year without work, possibly pursuing one or more of the main income-producing activities throughout the rest of the year.

To determine what proportion of the defined labour force may be considered as in the permanent labour force, it is necessary to look at the activities to find out what percentage is engaged full-time. An experienced labour pool from which workers could be drawn for development projects would be one in which a large proportion of the labour force was engaged in full-time wage employment.

Within the Mackenzie Impact Corridor, more than half of the native labour force (as previously defined) was engaged full-time in one of the three income-earning activities, or without work. That is 53 per cent of the corridor native labour force did one activity for the minimum 46 weeks (Table 22). There are definite differences. In the Central Mackenzie, more members of the labour force did a combination of activities in the 12-month period than in the other two regions. Throughout the corridor, more native females (81 per cent) were involved full-time in one of the activities for the whole year than were males (47 per cent), as opposed to just under 90 per cent for non-native males, 86 per cent for non-native females.

As expected, the non-natives were primarily engaged in wage employment, (Table 23); 90 per cent of the non-native labour force engaged for 46-52 weeks was in fact engaged in wage employment. Self employment emerges as the second most significant activity for non-natives.

 $[\]frac{1}{2}$ See Appendix 9 for settlement break-down of labour force activities.

The manpower survey covered only 41 per cent of the total nonnative corridor population, therefore coverage of the nonnative labour force would be correspondingly low. However, fuller coverage of non-natives would actually raise the percentage of those engaged for 46-52 weeks, e.g., full-time, in wage employment.

More important, however, is the fact that 57 per cent of the native labour force engaged full time at any one activity was engaged in wage employment. Only 20 per cent of the defined native labour force within the corridor was without work for the full 46-52 weeks.

This by no means implies that those natives engaged in wage employment full-time were in the same job throughout the period. It does, however, indicate that a significant proportion of the native labour force were wage-employees and thus somewhat experienced.

Seasonal Employment Patterns Among the Labour Force

One of the most persistent problems facing policy makers concerned with the economic development of the North has been that of the rather severe seasonality of work, particularly wage work, for the native population. This has resulted partly from a general lack of year-round wage jobs for much of the population; partly from natives' own preference. While short-term employment has been all that was available for many people, there are also numbers of native persons who have chosen to take wage employment only on a short-term basis.1/ From an inspection of statistics showing numbers of persons working in any one month, it is difficult to determine whether those working only part of the year are doing so by choice or necessity. In any event, the seasonal pattern is usually quite apparent in most parts of the North among the native population. In the Keewatin Region, for example, seasonal employment was marked, and wage employment particularly strong in late summer-early fall, reaching a peak around October, but remaining fairly high until January (Preston, 1969; pp. 21-25).

In Tables 24, 25 the native population (all those over 14 years of age who worked) is analysed according to numbers working each month, and the native labour force is also thus analysed. "Worked" in these tables refers to the three income-producing labour force activities: wage-employment, self-employment and hunting-trapping-fishing, therefore rendering it more difficult to clearly define seasonal patterns in wage employment, for example. Nevertheless, it can be clearly seen that there were no radical fluctuations throughout the Impact Corridor on a month by month basis. For the corridor as a whole, the fewest of (all) residents worked in December; for the labour force, the month of October. Within the Upper Mackenzie and Lower Mackenzie Regions, the low period tended to be during the months of December-January for both the labour force and all residents. Possibly this is a reflection of the decrease of wage employment opportunities. 2/ The Central Mackenzie

 $[\]frac{1}{2}$ See Volume 6, Part 4, Appendix 1.

Within the past few years, since the Mackenzie Manpower Survey was taken, several factors have changed which would significantly change the seasonal patterns, particularly in the Lower Mackenzie Region.
Oil exploration activities there, which occur primarily in winter months, would smooth out any winter month troughs in wage employment.

Table 23

PERCENTAGE DISTRIBUTION OF THAT PORTION OF THE LABOUR FORCE ACTIVE IN ANY ONE ACTIVITY $\frac{1}{2}$ FOR 46 - 52 WEEKS

		Without Work Male Female Total Per Cent	
CT CORRIDOR, N.W.T.	2/2/	Self-Employment Male Female Total Per Cent	
SPECIFIC ACTIVITY IN THE MACKENZIE IMPACT CORRIDOR, N.W.T.	Activities 2,	Hunting-Trapping- Fishing Male Female Total	
BY SPECIFIC ACTIVI		Wage and Salary Employment Male Female Total Per Cent	
			Moolest Daniel

Lower Mackenzie Region												
Native Non-Native $\frac{3}{2}$	63.8	80.0	80.0 69.4 98.1 92.9	17.6 1.0	1.0	11.8	1.7	3.1	2.2	17.0	17.0 15.8 1.4 0.9	16.6
Central Mackenzie Region												
Native Non-Native	70.4	70.4 64.7 100.0 100.0	68.8	1 1	1 1	1 1	1 1	1 1	1 }	29.5	35.3	31.1
Upper Mackenzie Region												
Native Non-Native	35.0	73.0	73.0 41.0 97.3 87.5	42.1	1 1	35.5	1.0	2.7	1.3	21.8	24.3	22.2
Total Impact Corridor												
Native Non-Native	50.8	76.5	57.6	27.3	8	20.3	1.2	2.7	1.6	20.6	20.1	20.5
$\frac{1}{2}$ "Activity": defined as 1) wage	ls 1) w		lovment.	2) hunti	ne-trapr	employment, 2) hunting-trapping-fishing. 3) self-employment, 4) without work	18. 3)	self-emn	lovment	4) with	duct work	

"Activity": defined as 1) wage employment, 2) hunting-trapping-fishing, 3) self-employment, 4) without work. Labour force members are those active in any one of 1 - 4, or combination, for not less that 46 weeks.

Those involved in any one of 1 - 4 for 46 - 52 weeks were totaled, and the per cent of the number involved in each separate activity is given here, i.e., those wage employed for 46+ weeks as percentage of total. 2/ 3/

Based only on small sample of total non-native population provided by manpower survey.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables, 13, 14. Source:

Table 24

NUMBER OF NATIVE RESIDENTS 14 YEARS OF AGE AND OVER WHO WORKED

FULL-TIME OR PART-TIME IN EACH MONTH BY SETTLEMENT IN THE MACKENZIE IMPACT CORRIDOR, N.W.T.

December Total	140 1,866 67 1,000 54 732 20 278 73 975 354 4,851	N/Av N/Av 9 83 65 690 24 317 1 433 149 1,523	33 531 71 851 24 378 14 150 8 13 156 10 120 82 1,024 255 3,308 758 9,682
November De	153 68 63 23 75 382	N/Av 6 66 22 48 142	50 71 32 11 8 14 10 69 265 789
October	157 76 64 22 72 391	N/Av 3 55 25 37 120	49 70 31 18 8 13 10 73 272 783
September	156 96 67 23 85 427	N/Av 2 48 23 30 103	54 70 27 12 7 11 10 95 816
August	161 82 46 20 106 415	N/Av 11 62 26 28 127	48 71 33 10 9 11 10 113 305
July	159 85 38 21 101 404	N/Av 14 61 24 30 129	47 72 34 13 10 10 105 303
June	162 86 73 25 93 439	N/Av 6 47 24 32 109	42 71 27 13 8 14 10 87 272 820
Мау	151 91 83 26 64 415	N/Av 4 45 22 29 29	41 70 29 9 14 10 77 257
March April	155 96 87 28 77 443	N/Av 2 52 25 29 108	43 70 35 10 8 14 10 75 265
	159 92 59 26 80 416	N/Av 7 60 32 35 134	42 70 35 10 9 14 10 80 270
February	157 83 50 23 78 391	N/Av 8 62 35 39	41 72 35 15 18 10 81 275 810
January Februa	156 78 48 21 71 374	N/Av 11 67 35 45 158	41 73 36 15 13 10 87 283
	Lower Mackenzic Region Inuvik Aklavik Ft. McPherson Arctic Red River Tuktoyaktuk Total Region	Central Mackenzie Keglon Norman Wells Colville Lake Ft. Franklin Ft. Good Hope Ft. Norman Total Region	Upper Mackenzle Region Ft. Simpson Ft. Liard Ft. Providence Ft. Wrigley Jean Marie River Nahami Butte Trout Lake Hay River Total Region

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 55. Source:

Table 25

NUMBER OF MEMBERS OF THE NATIVE LABOUR FORCE WHO WORKED

FULL-TIME OR PART-TIME IN EACH MONTH BY SETTLEMENT IN THE MACKENZIE IMPACT CORRIDOR, N.W.T.

	January	January February	March	April	May	June	July	August	September	October	November	December	Total
Lower Mackenzie Region													
Inuvik Aklavik Ft. McPherson Arctic Red River Tuktovaktuk	136 70 47 19 64	137 73 49 22 70	137 76 57 24 73	134 81 84 25 71	131 78 80 23 57	136 72 68 22 80	132 71 35 18	133 69 44 17 85	135 76 60 21 75	135 67 59 19	130 63 61 20 69	127 63 53 18	1,603 859 697 248 854
Total Region	336	351	367	395	369	378	335	348	367	343	343	329	4,261
Central Mackenzie Region													
Norman Wells Colville Lake	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av
Ft. Franklin	58	53	51	45	37	38	45	746	42	47	59	28 /	579
Ft. Good Hope	35	35	32	25	22	24	24	26	21	24	22	24	314
Ft. Norman	42	36	34	27	27	29	27	25	28	32	39	77	390
Total Region	144	130	122	98	89	96	109	105	93	106	126	1.33	1,351
Upper Mackenzie Region													
Ft. Simpson	37	37	39	38	37	37	38	38	40	36	39	30	977
Ft. Liard	71	70	69	69	69	70	70	69	68	69	70	70	834
Ft. Providence	35	34	34	34	28	26	31	32	26	29	30	23	362
Ft. Wrigley	12	12	00	∞	7	12	10	00	6	13	9	11	116
Jean Marie River	∞	00	00	7	7	00	7	7	7	00	00	00	91
Nahanni Butte	13	13	14	14	14	14	12	11	11	13	14	13	156
Trout Lake	10	10	10	10	10	10	10	10	10	10	10	10	120
Hay River	81	79	78	7.5	74	85	93	97	84	69	99	78	626
Total Region	267	263	260	255	246	262	271	272	255	247	243	243	3,084
Total Impact Corridor	747	744	749	748	704	736	715	725	715	969	712	705	8,696

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 55.

Region, on the other hand, did not fit this pattern. This could be a reflection of the fact that hunting-trapping activities were more important in that region than in the others.

While fluctuations in monthly work patterns among the natives were relatively insignificant, similar patterns were even less significant among the non-natives. (Tables 26, 27).

When looked at according to age groupings among the native labour force, however, some interesting variations appear. In Table 28, numbers of labour force members who worked full or part-time in each month are grouped according to the age groups 14-24, 25-39, 40 years and over. For natives the total labour force under 40 years makes a larger proportion of the total labour force active each month than does that portion over 40. However, the 40 years and over group consistently forms a larger proportion of the total working in each month than do either of the other two groups, 14-24 and 25-39. Removal of those over 40 who spend much time in hunting-trapping might significantly reduce the proportion of the group in each month (see Volume 5). It is apparent, however, that concentration of efforts to smooth out unemployment or distribute work more consistently throughout the year might be better concentrated particularly on the group under 25 years.

Unemployment Rate

Unemployment is usually measured for a specific point in time, and is defined as that percentage of the labour force which is looking for work. For the Northern Manpower Survey Program, a specific week was chosen for each region. For the Mackenzie Manpower Survey, the week of September 27 - October 3, 1970, was the week selected for measuring unemployment. This assessment of the situation, presented in Table 29, reveals that the last part of September was not the most ideal period in which to measure unemployment rates. Overall in the corridor, 61 per cent of the native labour force was shown as actually working as opposed to 39 per cent which was not. No particular age group shows up as having a radically higher level of employment or unemployment than any other of the specified age groups shown in Table 29, beyond the fact that the age group 12-24 years has the highest unemployment percentage for that week. This would be a reflection of the numbers of this age group who were attending school or training courses.

Month by month analysis of trapping activities is presented in Volume 5. Subtraction of these people would give a more adequate indication of the seasonal fluctuations in wage employment.

Table 26

FULL-TIME OR PART-TIME IN EACH MONTH BY SETTLEMENT IN THE MACKENZIE IMPACT CORRIDOR, N.W.T. NUMBER OF NON-NATIVE 1 / RESIDENTS 14 YEARS OF AGE AND OVER WHO WORKED

December Total		280 3,973 28 357 15 178 N/Av N/Av	323 4,508		100			81 987									372 4.937	421 5,587	٦
November Dec		344 29 15 N/Av	388	39	01	10	14	82										453 4	
October		352 32 15 N/Av N/Av	399	41	1 -	10	15	85		43	5	N/Av	7	. 1	ŧ	ı	432	487	170
September		350 31 14 N/Av N/Av	395	41	1 -	10	1.5	85		5 77	5	N/Av	7	ı	ı	ı	436	493	070
August		307 31 13 N/Av N/Av	351	39	16	0 00	16	79		70	5	N/Av	9	ı	4	1	777	495	200
July		310 30 14 N/Av N/Av	354	38	16	10	15	79		39	2	N/Av	9	ı	1	i	443	493	900
June		344 30 15 N/Av N/Av	389	38	20	10	14	82		45	9	N/Av	7	1	1	1	421	674	0 20
May		343 29 15 N/Av N/Av	387	38	20	10	14	82		4.5	9	N/Av	7	1	ı	1	607	467	920
April		338 30 16 N/Av N/Av	384	38	20		14	83		43	9	N/Av	7	1	1	1	007	957	923
March		338 29 16 N/Av N/Av	383	38	20	11	15	84		42	9	N/AV	7	1	1	ŀ	398	453	920
January February		336 29 15 N/Av	380	38	20	10	15	83		42	9	N/Av	7	ł	ı	ı	393	877	911
January		331 29 15 N/AV N/AV	375	38	20	10	14	82		07	9	N/Av	۲-,	ł	ı	ı	389	442	899
	Lower Mackenzie Region	Inuvik Aklavik Ft. McPherson Arctic Red River Tuktoyaktuk	Total Region Central Mackenzie Region	Norman Wells	Ft. Franklin	Ft. Good Hope	Ft. Norman	Total Region	Upper Mackenzie Region		Ft. Liard	Ft. Providence	Ft. Wrigley	Jean Marie River	Nahanni Butte	Trout Lake	Hay River	Total Region	Total Impact Corridor

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 55.

 $\frac{1}{2}$ Illustrative only since only 41 per cent of total non-native corridor population covered by manpower survey.

Table 27

FULL-TIME OR PART-TIME IN EACH MONTH BY SETTLEMENT IN THE MACKENZIE IMPACT CORRIDOR, N.W.T. NUMBER OF MEMBERS OF THE NON-NATIVE $^{1/2}$ LABOUR FORCE WHO WORKED

	January	January February March	March	April	Мау	June	July /	August	September	October	November D	December	Total
Lower Mackenzie Region Inuvik Aklavik Ft. McPherson Arctic Red River	296 28 14 N/Av	297 28 14 N/Av	297 28 14 N/Av	298 28 14 N/Av	299 27 13 N/AV	299 27 13 N/AV	258 26 12 N/Av	257 26 12 N/Av	300 27 13 N/AV N/AV	301 28 14 N/Av	302 27 14 N/Av N/Av	264 27 14 N/Ąv	3,468 327 161 N/Av N/Av
Tuktoyaktuk Total Region	338	339	339	340	339	339	296	295	340	343	343	305	3,956
Central Mackenzie Region Norman Wells	37	37	37	37	37	36	36	37	36	37	37	37	441
Colville Lake	l -	1 -	1 0	10	1 0	19	16	16	19	19	19	19	222
Ft. Franklin Ft. Good Hope Ft. Norman	14	17	14	14	10	14	9 14	7	9	9	9	9	106
Total Region	79	79	79	79	79	7.8	75	74	78	79	79	79	937
Upper Mackenzie Region													
Ft. Simpson	38	38	39	39	39	39	33	33	39	38	38	36	449
Ft. Liard Ft. Providence	N/AV	N/Av	N/Av	N/Av	N/Av								
Ft. Wrigley	7	7	7	7	7	_	9	9	7	_	_	_	78 -
Jean Marie River	1	I	ı	1	ı	1	1	ı	I	1	ı	l 1	ı
Nahanni Butte	1	1	1	1	ı	ı	ı	I	ł	1 1	l i	. 1	ı
Trout Lake Hay River	365	367	372	374	376	376	378	378	379	377	369	357	4,468
Total Region	415	417	423	425	427	427	422	422	430	427	419	405	5,059
Total Impact Corridor	832	835	841	778	845	844	793	791	848	678	841	789	9,952
							(1	L .				

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 55.

Illustrative only since only 41 per cent of total non-native corridor population covered by manpower survey. 1/

Table 28

NUMBER OF MEMBERS OF THE NATIVE AND NON-NATIVE LABOUR FORCE WHO WORKED

FULL-TIME OR PART-TIME IN EACH MONTH BY SELECTED

AGE GROUP IN THE MACKENZIE IMPACT CORRIDOR, N.W.T.

		2111 1101 0010	KIDOK, N.W.I.
	Age Group	Native	Non-Native 1
January	14-24	198	192
	25-39	289	372
	40+	261	268
	Total	748	832
February	14-24	195	19 4
	25-39	286	372
	40+	264	269
	Total	745	835
March	14-24	198	193
	25-39	291	376
	40+	261	272
	Total	750	841
April	14-24	206	193
	25-39	284	376
	40+	259	275
	Total	749	844
May	14-24	190	192
	25-39	263	377
	40+	252	276
	Total	705	845
June	14-24	203	192
	25-39	276	375
	40+	258	277
	Total	737	844
July	14-24	189	177
	25-39	282	349
	40+	245	267
	Total	716	793
August	14-24	194	176
	25-39	278	348
	40+	254	267
	Total	726	791
September	14-24	197	193
	25-39	279	378
	40†	240	277
	Total	716	848
October	14-24	188	195
	25-39	272	376
	40 +	237	278
	Total	697	849
November	14-24	183	190
	25-39	283	376
	40 ∳	247	275
	Tota1	713	841
December	14-24	183	174
	25-39	269	353
	40†	254	262
	Total	706	789
Total		8,708	9,952

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 55.

 $[\]underline{\mathbf{1}}/$ Sample only, based on 41 per cent sample coverage of total non-native population by Survey.

Table 29

WITHOUT WORK IN A SELECTED WEEK, SEPTEMBER 27, 1970 TO OCTOBER 3, 1970, BY SETTLEMENT AND AGE GROUP IN THE MACKENZIE IMPACT CORRIDOR, N.W.T. NUMBER OF MEMBERS OF THE NATIVE AND NON-NATIVE LABOUR FORCE $^{\perp}$ /

	Nativè	vè - Work	ed	Native	- Didn't	Work	Non-Native -	ive - Wo	Worked	Non-Native	- Didn't	Work
	14-24	25-39 40	407	14 24	25-39	40+	14-24	25-39	+0+	14-24	25-39	+0+
Lower Mackenzie Region												
J'inia T	40	41	34	24	16	7	88	116	92	2	n	
Allavin	12	31	21	24	13	6	3	1.5	10	1	ı	1
Ft McPherson	15	27	14	10	18	13	7	9	2	1	1	ι.
Arctic Red River	r)	00	00	7	5	1	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av
Tuktoyaktuk	00	11	27	19	23	20	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av
Total Region	78	118	104	81	75	95	9.6	137	107	50	3	П
Central Mackenzie Region												
Norman Wells	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av	∞	14	14	ı		ı
Colville Take	. 1	. 1	. 1	オ	∞	М	1	ı	1	1	ŀ	1
D+ Frontin	7.	38	14	7	9	9	∞	∞	3	1	ı	I
Et Cood Hone	H J	0	7	œ	14	6	5	3	1	ı	ı	1
		16	∞	9	9	6	3	2	9	ı	ŀ	ł
Total Region	27	45	26	25	34	27	24	30	24	1	 -	1
Upper Mackenzie Region												
Ft. Simpson	00	11	18	10	m	5	7	21	13	1	ı	1
	14	28	27	1	1	0	П	7	0	1 .	1	1 3
	5	12	9	6	10	1.2	N/Av	N/Av	N/Av	N/Av	N/Av	N/AV
Ft. Wrigley	2	2	5	77	9	∞	Н	9	0	ı	í	ı
Jean Marie River	ı	ŀ	9	2	ı	ı	1	1	t	ı	I	ı
Nahanni Butte	7	⊣	∞	J	1	I	ı	1	I	ı	1	ı
Tront Lake	2	3	2	2	ţ	1	ı	1	ı	I	I	(
Hay River	25	28	20	15	13	12	69	172	132	4	9	m
Total Region	63	85	92	77	33	37	7.5	203	145	7	9	3
Total Impact Corridor	168	248	222	150	142	110	194	370	276	6	10	7

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 58. Source: 1/ Sam

Sample only, based on 41 per cent sample coverage of total non-native population by survey.

Whether for purposes of pipeline construction or for other reasons, it is evident that in developmental programs, efforts should be made to attempt to smooth out the annual fluctuations in the work force. That is, one objective should be to reduce the number of weeks without work (whatever "work" may be) in relation to the number of weeks with work. Appendix 9 shows the number of members of the labour force, by the number of weeks engaged in specific activities. Because of duplication of numbers of persons showing up in the activity groups between none and 46-52 weeks, it is difficult to obtain a clear picture of periods of unemployment (without work). Appendix 10 to present a clearer picture of native males' activities in the impact corridor.

Here, with a special computer run, the weeks spent at one or more of the main income-producing activities (wage work, trapping, self-employment) have been combined and cross-tabulated against weeks without work. In the majority of the impact communities, it is apparent that in general only relatively short-term work was available through much of the period covered by the Mackenzie Manpower Survey. Essentially, the problem seems to be one of developing means for the local residents to obtain more work of longer duration. This would be especially true in the wage employment sector, particularly if the native population is to have the opportunity to develop regular work habits, relevant experience and to learn to adapt generally to a wage employment economy.

Labour Force Income 1/

Consistent with the dependence on wage employment for the greater part of their total earned income, the overall largest percentage of that income for the native labour force was derived from wage employment. Distribution of wage income according to income size ranges, summarized in Table 30, and in detail in Appendix 11, was essentially the same as for the population as a whole. Comparison of native labour force representation in the various income ranges with that of the total native population (Table 13, Chapter 2, above) does reveal that a slightly larger proportion of the labour force wage earnings was in the range of \$4,000-\$9,999 than for the total adult population, 26 per cent. However, only one per cent of the labour force wage earners fell in the category of \$10,000 and over — compared to 27 per cent for non-natives.

Wage income was the most important income source to the native labour force. The source of that income, i.e., by type of employer, is more difficult to determine precisely, owing to the tendency on the part of the majority of the native labour force to have a number of jobs and many different employers in the course of a year. The Mackenzie Manpower Survey made no provision for obtaining income earned from each employer, only for total wages throughout the survey period, even though provision was made for determining the different kinds of work done in the year, by employers. That is, although respondents might have indicated a number of jobs and employers within the survey year, only total wage and salary income for the year was entered.

Average incomes, wage rates, fringe benefits and the overall place of wage income within the economy of the Impact Corridor are discussed in detail in Volumes 4 and 7. Labour force - as defined above, pp. 1-40 - 1-41.

PERCENTAGE DISTRIBUTION OF NATIVE AND NON-NATIVE LABOUR FORCE BY INCOME CATEGORY, MACKENZIE IMPACT CORRIDOR, N.W.T.

(Percentage of Total Earners Within Each Income Range Groups by Ethnic Origin)

	Not Specified	e Native	6.6	63.6	39.5	12.2	0.3	6.8
	Spe	Native Native percent	9.1	23.2	0°47	11.8	0.4	6.5
	\$10,000 and over	non- re Native percent	26.7	I	26.3	26.8	j	27.2
	\$10	Native	1.1	1	1	0.8	1	1.0
IDOR	+4,000 - 9,000	Native Native	51.5	18.2	27.6	8.64	I	49.3
1PACT CORR	\$4,	Native	25.9	1.6	ı	22.7	I	22.8
TOTAL MACKENZIE IMPACT CORRIDOR	\$1,000 - 3,999	Non- Native	10.7	1	2.6	10.1	2.6	10.2
TOTAL M	₩ 1,000	Native Native percent	41.2	8.7	16.0	38.3	4.0	42.1
	\$1 - \$999	Non- Native	1.2	18.2	3.9	1.1	97.1	9.9
	* 1	Native	22.7	66.5	0.04	26.4	92.6	27.6
			Wages and Salaries	Hunting, Trapping, Fishing	Self-Employment	Earned Income	Unearned Income	Total Income

Based on sample coverage by survey on only 41 percent of total non-native population in corridor.

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 31 - 36.

Nevertheless, it is possible to obtain an indication of the amounts of wages and salaries earned within basic employer category federal government, territorial government, private employers and selfemployment. A summary by settlement for the Impact Corridor is given in Appendix 12. From Table 31, it is evident that government - both federal and territorial - was the largest employer of natives. Therefore it follows that wage employment for government was the single largest source of wage income. The reasons are obvious: government represents the largest sector of activity in the North; the private sector, even in the Mackenzie Valley, is relatively small by comparison. Pending a greater development of the private sector, government will remain the single largest employer of natives. Consequently government must necessarily attempt to fit natives into the work force in such a way that the general employment peaks and troughs smooth out, and that natives gain wage employment experience at increasingly higher levels so that the native labour force as a whole forms a larger proportion of the total labour force than at present.

Since government, now largely the territorial government, is the largest employer of natives, and also generally the source of the highest wage incomes, it will be interesting to observe how long-term native government employees will react to the possibilities of pipeline construction work when construction commences. That is, will those who now have permanent jobs at some percentage of the prevailing wage rate, choose to remain at the permanent government job, or will they attempt to obtain the higher paid pipeline-related work? 1/

See Volume 7 for discussion of comparative wage rates and the likely effects of pipeline-oriented employment on the local work force.

Table 31

NUMBERS¹/OF NATIVE RESIDENTS 14 YEARS OF AGE AND OVER WHO REPORTED HAVING WORKED BY BASIC EMPLOYER CATEGORY IN THE MACKENZIE IMPACT CORRIDOR, N.W.T.

Self- Employed	Male Female Total	16 76	11 61	6 131	33 268
, E	Male Fe	09	20	125	235
	Total	301	79	137	517
Private	Male Female Total	115	18	40	173
En P	Male	186	61	97	344
al t	Total	105	47	47	199
Territorial Government	Male Female Total	35	11	14	09
Te	Male	70	36	33	139
17	Total	121	31	81	233
Federal	Male Female Total	26	6	12	47
9	Male	95	22	69	186
		Lower Mackenzie Region	Central Mackenzie Region	Upper Mackenzie Region	Total Corridor

The intention Double counting occurs as many people work for more than one employer in a year. here is to give only an indication of relative importance of employer sectors. 1

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970. Source:

Appendix 1

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

	no			
	Total Population	75 1 158 158 56 25 315	33 42 42 42	22 1 1 1 24
FEMALE	14 years and over	42 1 83 27 21 174	24 1 1 3 3 8 2 8	17 1 1 1
	14 year ₂ / olds ² /	(3) (2) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	(1)	(1)
	0 - 13 years of age	33 - 75 29 4	9 - 1 - 1 - 1 - 1 - 1 - 1	יטווויט
	Total Population	63 - 166 57 38	44 9 1 54	26
MALE	14 years and over	32 82 25 28 167	36 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	20
	14 year ₂ / olds-/	- 1 (2) (2) (2) (2)	1 1 1 1 1	1 1 1 1 1 1
	0 - 13 years of age	31 - 84 32 10 157	11 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	911119
	Settlement and Ethnic Origin	AKLAVIK Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL	ARCTIC RED RIVER Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL	COLVILLE LAKE Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered.

 $\frac{2}{}$ Counted in column headed 14 years and over.

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

			MALE				FEMALE	
Settlement and Ethnic Origin	0 - 13 years of age	14 year ₂ / olds—/	14 years and over	Total Population	0 - 13 years of age	14 year ₂ / olds-/	14 years and over	Total Population
ECHO BAY								
Treaty Indian	ı	8	I	ı	ı	I	1	ı
Non-treaty Ind.	1	ı	1	ı	ſ	1	î	1
Eskimo	1	ı	1	1	ı	l	ł	I
Metis	2	ı	H	3	ı	\$	1	- T
Non-Native	1	ł	71	71	က	ı	H	14
TOTAL	2	1	72	74	3	1	12	15
ENTEDDOTCE								
Treaty Indian	1	ı	1	1	1	}	9	1
Min the ter Ind	ı	ı	1	1	1	1	1	1
Non-treaty ind.				1	ı	ł	1	9
Eskimo	ì	I	ı	l T	F		1	_
Métis	-	ı	1		⊣	L] (1 0
Non-Native	11	(2)	16	27	00		7 T	07
TOTAL	12	(2)	16	28	6	(1)	18	2.1
101 12210								
FORT FRANKLIN	7.		να,	150	77	(4)	79	156
Treaty Indian	<u> </u>	(+)	7 0	, r,	. 1) 1	c	n
Non-treaty Ind.	7	ŧ	· •	٦)	1
Eskimo	1	1	ı	1	1	I	} '	•
Mortis	n	(1)	3	9	c	1	Н	4
Non-Native	12	(1)	15	27	6	ı	13	22
TOTAL	92	9	105	197	89	(4)	96	185

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered. 1

 $[\]frac{2}{}$ Counted in column headed 14 years and over.

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

2/ 14 years and over 65 7 77 77 81 81 135		0 - 13 years of age 05 8 8 - - 5 63	2/ 14 and	Total Population 108 19 - 11 12 140
an 33 - 65 Ind. 8 - 7 10 - 2 2 - 7 OTAL 53 - 81 an 56 (1) 77 Ind		50 88 633 644		108 19 - 1 12 140
ry Ind. 33 65 ty Ind. 8 7 ve 2 7 TOTAL 53 81 ndian 56 (1) 77 ty Ind 4 ve 5 5 TOTAL 61 (1) 86 RSON ndian 100 (5) 135		50 88 88 88 88 88 88 88 88 88 88 88 88 88		108 19 - 1 12 140
ty Ind. 8 - 7 ve		63 55 1 1 8		19 12 12 140
ve TOTAL 53 - 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		63 63		1 12 140
ve TOTAL 53 - 2 7 7		63		1 12 140
ve TOTAL 53 - 7 Indian 56 (1) 77 ty Ind 4 TOTAL 61 (1) 86 RSON RSON ndian 100 (5) 135		63		140
rotal 53 - 81 ndian 56 (1) 77 ty Ind 4 ve 5 - 5 Total 61 (1) 86 RSON ndian 100 (5) 135		63		140
ndian 56 (1) 77 ty Ind. – – – – – ve 5 – 4 TOTAL 61 (1) 86 RSON ndian 100 (5) 135		77		
nd. 56 (1) 77 nd 4 5 - 7 TAL 61 (1) 86 n 100 (5) 135		77		
nd.				92
TAL 61 (1) 86		1	- 2	2 2
TAL 61 (1) 86		ı		
TAL 61 (1) 86 nn 100 (5) 135		9	ı	9
TAL 61 (1) 86 n 100 (5) 135		-	7	יי נר
n 100 (5) 135	86 147	51	(3) 54	105
100 (5) 135				
	135 235	113	(6) 136	67.6
eaty Ind. 1 (1) 3		-	(2) 8	<u>,</u> 0
-		n	2	, 10
15 (1) 10		13	(1) 10	23
7 - 8		2		17
TOTAL 127 (7) 157	157 284	132	(9) 168	300

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered.

Counted in column headed 14 years and over. 2/

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

	ion			
	Total	67 10 - 17 14 108	134 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	95 70 71 27 263
FEMALE	14 years and over	38 7 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	68 2 2 1 1 1 7 2 7 2	55 40 - 37 22 154
	14 year ₂ / olds_/	(1)	(9)	(1) (2) (3) (4) (4) (5) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7
	0 - 13 years of age	29 3 46 46	66	40 30 - 34 5 109
	Total Population	71 17 - 17 21 126	147 4 - - 3 154	132 89 - 76 38 335
MALE	14 years and over	43 13 12 73	75	74 52 - 36 21 183
	14 year ₂ / olds—	(1)	(2)	(3) (3) (3) (3)
	0 - 13 years of age	28 4 12 9 53	72 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	58 37 40 17 152
	Settlement and Ethnic Origin	FORT NORMAN Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL	FT. PROVIDENCE Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL	FT. RESOLUTION Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered.

1

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

MACKENZIE MANPOWER SURVEY 1/

Settlement								
Origin	0 - 13 years of age	14 year ₂ / olds ² /	14 years and over	Total Population	0 - 13 years of age	14 year ₂ / olds-	14 years and over	Total Population
FORT SIMPSON Treaty Indian	77	(7)	96	173	78	(7)	o o	791
Non-treaty Ind.	9	1	2	00	000)) _L O	101
Eskimo	1	ı	1	ł	H	1	-	2
Métis	2	(1)	12	17	7.0	1	7	12
Non-Native	27	1	31	58	22	1	35	57
TOTAL	115	(8)	141	256	114	(4)	134	248
FORT SMITH								
Treaty Indian	41	(5)	71	112	45	(2)	00	103
Non-treaty Ind.	23	(1)	300	61	00	Ì	37	ا د تر
Eskimo	1	1	7	7	2	1	2	
Métis	124	(9)	111	235	113	(7)	121	234
Non-Native	236	(11)	348	584	198	(11)	338	536
TOTAL	424	(23)	575	666	376	(20)	559	935
FORT WRIGLEY								
Treaty Indian	21	1	48	69	27	(2)	37	79
Non-treaty Ind.	1	1	ì	1	1	Ì	1	
Eskimo	1	1	1	1	ı	1	1	ı
Métis	1	ı	1	1	ı	1	1	1
Non-Native	5	I	5	10	7	ı	7	
TOTAL	26	1	53	79	34	(2)	41	75

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered.

 $\frac{2}{}$ Counted in column headed 14 years and over.

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

	Total	76 20 - 93 484 673	25	37 8 270 26 377 718
FEMALE	14 years and over	39 16 - 42 312 409	13	26 4 139 10 242 421
	14 year ₂ / olds-	(3) (1) (2) (22) (22)	(1)	(1) (12) (12) (6) (19)
	0 - 13 years of age	37 4 - 51 172 264	12 12 12	11 4 131 16 135 297
	Total Population	102 23 - 89 519 733	24 - 1 25	33 8 261 19 427 748
MALE	14 years and over	63 16 46 328 453	15	16 3 141 11 266 437
	14 year ₂ / olds—	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	(1)	(4) (1) (12) (17)
	0 - 13 years of age	39 7 7 43 191 280	6 1 1 1 1 1 1 0	17 5 120 8 161 311
	Settlement and Ethnic Origin	HAY RIVER Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL	JEAN MARIE RIVER Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL	INUVIK Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered. 1

Counted in column headed 14 years and over.

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

Settlement 0 and y Ethnic Origin of								
	0 - 13 years of age	14 year ₂ / olds-2/	14 years and over	Total Population	0 - 13 years of age	14 year ₂ / olds ² /	14 years and over	Total Population
KAKISA LAKE								
Treaty Indian	9	1	14	20	7	1	10	14
Non-treaty Ind.	1	1	ı	1	I	1	1	1
Eskimo	ı	ı	1	ı	1	ı	ı	1
Metis	1	ı	1	ì	ı	1	ı	ı
Non-Native	1	ı	ı	ı	1	ı	1	
TOTAL	9	I	14	20	7	1 1	10	14
LAC LA MARTRE								
an	37	(2)	65	86	37	(4)	77	2
Non-treaty Ind.	ı	!	1	ı	. 1) 1	. 1	d (
Eskimo	1	1	1	1	1	1	1	l I
Métis	1	1	ı	1			ì	ı
Non-Native	ı	1		ı	I	I	ı	į
LOTAL	37	(2)	7,0	90	1 1	1 (1 ;	ı ;
		(7)	47	00	3/	(4)	77	81
NAHANNI BUTTE								
Treaty Indian	9	(1)	16	22	12	(1)	10	22
Non-treaty ind.	ı	ı	ı	1	ı	ł	1	ı
ESKIMO	ı	I	ı	ı	ı	1	ı	i
Metis	ı	ı	ı	1	ı	ı	1	í
Non-Native	ı	ŀ	ı	1	J	ı	ı	8
TOTAL	9	(1)	16	22	12	(1)	10	22

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered.

 $\frac{2}{}$ Counted in column headed 14 years and over.

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

	s Total r Population	1 1	1 !	42	42	1	1 %	† 1	t	34	ř	4-1	7	0	33	357	412
FEMALE	14 years and over	1 1	1	28	28	I	1 1) T	1	17	(m c	7 •	4	19	219	247
	14 year ₂ / olds_	1 1	ı	1 1	ı	1	1	1 1	1	1		ı	I	ı	(1)	(2)	(9)
	0 - 13 years of age	1 1	I	14	14	1	1 [1/	t	17		11	1 -	2	14	138	165
	Total Population	1 1	1 1	58 58	59	I	1 (0 +	ı	41		10	1	2	65	411	472
MALE	14 years and over	1 1	1 1	1 32	33	1	1 7	Ie	1	16		7		2	20	269	295
	14 year ₂ / olds-/	1 1	ı	1 1	ı	ı	ı	1 1	1	1		1	1	i	(1)	(9)	(2)
	0 - 13 years of age	1 1	ı	26	26	ŧ	1	24	1 1	25		9	1	1	29	142	177
	Settlement and Ethnic Origin	NORMAN WELLS Treaty Indian Non-treaty Ind.	Eskimo	Métis Non-Native	TOTAL	PAULATUK Treatv Indian	Non-treaty Ind.	Eskimo	Non-Native	TOTAL	PINE POINT	Treaty Indian	Non-treaty Ind.	Eskimo	Métis	Non-Native	TOTAL

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered.

1/

 $[\]frac{2}{}$ Counted in column headed 14 years and over.

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

			MALE				FEMALE	
Settlement and Ethnic Origin	0 - 13 years of age	14 year ₂ / olds ² /	14 years and over	Total Population	0 - 13 years of age	14 year ₂ / olds ² /	14 years and over	Total Population
RAE								
Treaty Indian	180	(8)	210	390	187	(11)	203	390
Non-treaty Ind.	5	ı	2	7	2	(1)	က	5
Eskimo	ı	ı	ı	8	⊣	1	Н	2
Métis	ı	1	H		Н	ı	1	
Non-Native	C	i	4	7	ı	1	00	∞
TOTAL	188	(8)	217	405	191	(12)	215	907
RAE LAKES								
Treaty Indian	12	(2)	27	39	11	ı	16	27
Non-treaty Ind.	1	ı	ı	ı	1	1	ı	ı
Eskimo	ı	ı	ı	ŧ	ı	1	ı	1
Métis	1	1	ı	1	ı	1	8	I
Non-Native	ı	1	ı	ı	1	î	1	ı
TOTAL	12	(2)	27	39	11	1	16	27
SACHS HARBOUR								
Treaty Indian	I	ı	t	1	ı	1	1	ı
Non-treaty Ind.	ı	Į	1	1	ı	ı	ı	ı
Eskimo	28	(2)	20	48	35	(1)	24	59
Métis	1	ı		1	i	1	1	1
Non-Native	4	ı	m	7	П	1	m	7
TOTAL	32	(2)	23	55	36	(1)	27	63
1/ DIAND Mackenzie Mannower Survey, November 1970; survey reference year October 1 1969	Mannomer	Survey, N	ovomber 197	O survey refe	1000	40400	1060	

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered.

2/

Counted in column headed 14 years and over.

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

			MALE				FEMALE	
Settlement and Ethnic Origin	0 - 13 years of age	14 year olds_/	14 years and over	Total Population	0 - 13 years of age	14 year ₂ / olds_	14 years and over	Total Population
SNARE LAKES	ι			Ţ	c	ı	œ	10
Treaty Indian	0	1	0	11	1 1	1 1) i) I
Non-treaty Ind.	I	l i	l i	ı	1	ı	ł	1
ESKIMO	ì	l	•					
Métis	ı	1	i	ı	1	1	I	j.
Non-Native	ı	ı	1	3	1	1	I	ı
TOTAL	2	ı	9		2	1	∞	10
metartorio								
SNOWDKIFI Treaty Indian	87	(5)	24	102	50	(1)	36	86
Non-trooty Ind	<u>)</u> 1) 1		1	ı	1	ı	ı
Roll-ticacy time	,1	1	ı	1	ĵ	ł	ı	1
ESKIMO			i	1	1	ı	ı	1
Metis	1	ł	1	ı				
Non-Native	ı	1	1	1	1	ı	1	1
TOTAL	84	(5)	54	102	50	(1)	36	86
TROUT LAKE								
Treaty Indian	7	1	12	19	10	.1	11	21
Non-treaty Ind.	1	1	i	ī	1	ı	ı	ì
Eskimo	1	ı	ı	ı	1	1	ı	ı
Métis	1	1	!	1	1	ı	ı	ı
Non-Native	ł	i	1	1	1	ı	ı	ı
TOTAL	7	ı	12	19	10	ı	11	21

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered. $\frac{1}{1}$

Counted in column headed 14 years and over.

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

			MALE				FEMALE	
Settlement and Ethnic Origin	0 - 13 years of age	14 year ₂ / olds ² /	14 years and over	Total Population	0 - 13 years of age	14 year ₂ / olds ² /	14 years and over	Total Population
TUKTOYAKTUK Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL	3 122 125	(1) (4) (5) (5)	139	6 261 267	110	1 (6)	3 114 114 118	5 1 224 -
YELLOWKNIFE Treaty Indian Non-treaty Ind. Eskimo Métis Non-Native TOTAL	53 8 4 48 619 732	(1) - (2) (31) (34)	88 8 5 1,385 1,533	141 16 9 2,004 2,265	63 4 7 33 523 630	(2) (32) (36)	72 21 9 57 1,140 1,299	135 25 26 16 1,663 1,929
YELLOWKNIFE VILLAGE Treaty Indian	25	1 1 1 1 1	00 1 1 1 00 1	5.1 1 1.55	24	(1)	22	97

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970 persons, 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered.

Counted in column headed 14 years and over.

2/

Appendix 1 (cont'd)

BREAKDOWN OF POPULATION BY SPECIFIED AGE GROUP, SEX, ETHNIC ORIGIN AND SETTLEMENT

1

Counted in column headed 14 years and over.

DIAND Mackenzie Manpower Survey, November 1970; survey reference year October 1, 1969 -September 30, 1970, persons 14 years of age as of December 31, 1969 counted as adults and thus full questionnaire administered.

APPENDIX 2

POPULATION BY AGE GROUP, ETHNIC STATUS AND SEX, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

LOWER MACKENZIE REGION

INUVIK Non- Non-	FT. McPHERSON	Non- 1 Native Native Total	7 13		7	3 2	2 2	-	1		11 - 11	ı	I	Н		269 15 284	9 2 1	6 1	2	1 3	6 2	14 - 14	2		ı	H	1	16 - 16	286 14 300	700
Native Native Total Native 155 173 328 15 35 28 63 22 19 45 64 10 14 24 11 22 32 10 14 24 11 9 20 3 14 24 11 15 4 11 15 4 27 748 17 21 38 18 31 49 18 31 49 19 31 10 14 11 29 12 19 13 14 14 5 15 14 16 34 17 21 18 31 19 31 10 34 11 4 12 19 13 14 14 5 15 19 16 14 17 18 18 17 19 19 10 14 11 15 12 19 13 14 14 5 15 14 16 14 17 18 18 17 19 19 10 14 11 15 12 14 14 5 15 15 16 15 17 18 18 17 19 19 10 14 11 15 12 13 13 14 14 5 15 15 16 15 17 18 18 19 19 19 10 19 11 15 12 13 13 14 14 5 15 15 16 15 17 18 18 19 19 19 10 19 11 15 12 13 13 14 14 15 15 15 16 17 17 18 18 19 19 19 10 19 11 15 12 13 13 14 14 15 15 15 16 17 17 18 18 19 19 10 19 11 19 11 19 12 19 13 19 14 15 15 16 16 17 17 18 18 19 19 19 10 19 10 19 11 19 12 19 13 19 14 19 15 19 16 19 17 18 18 19 19 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 10 19 11 18 12 19 13 19 14 18 15 18 16 18 17 18 18 19 18 19 19 19 10 19 10 19 10 19 11 19 12 19 13 19 14 19 15 19 16 19 17 18 18 19 18 19 19 19 10 19 10 19 10 19 10 19 10 19 10 19	AKLAVIK	Non- e Native Tota	11	1 -	7	m	₹O	7	1	Н	-	2	Н	-	7	38 32	4 14	1 2	3 2	6 2	2 1	- 1	3 1	П П		1	-	3	25 31	63
INU Native Na 155 35 39 19 10 10 11 321 17 4 4 4 4 2 8 17 17 8 17 8 17 8 17 8 17 8 17 8 17	/IK	ve Total	378 15		7 69	99 1	64	39 1	45	32	24	20	11	∞	15 1	748 28	41 316 14	31 73 2	83 2	50 2	49	38 1	29	31 1	17 1	14	5	13	718 29	L3 227 F
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Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970 Table 1.

APPENDIX 2 (cont'd)

POPULATION BY AGE GROUP, ETHNIC STATUS AND SEX, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

LOWER MACKENZIE REGION

Source: DIAND Mackenzie Manbower Survey, October 1, 1969 - September 30, 1970, Table 1.

POPULATION BY AGE GROUP, ETHNIC STATUS AND SEX, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

CENTRAL MACKENZIE REGION

Total	98 16 18 12 7 11 6 6 4 4 5 5 197	93 18 17 11 7 7 6 6 6 11 185	382
FI. FRANKLIN Non- Native	13 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	22 1 1 2 2 2 2 2 2 2	64
Native	85 114 110 5 9 5 170	84 17 10 7 8 8 8 6 6 6 6 11 163	333
Total	27 33 5 5 1 1 1 3 3 3 5 7 7	24 1 1 1 2 2 2 4 4 1 1 1 1 2 2 1 6	51
COLVILLE LAKE Non- Native			1
Native	27	0 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	51
Total	26 1 6 7 7 2 2 1 1 2 5 8 5	14 2 4 4 4 4 4 7 1 1 1 1 1 4 2 4 4 4 4 4 4 4 4 7 1 1 1 1 1 1 1 1 1 1 1	101
NORMAN WELLS Non-	26 1 2 2 3 3 1 1 2 5 8 8	14 2 4 4 4 4 7 1 1 1 1 1	100
Native	N/Av	N/Av	N/Av
Age Group	0-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 ‡	0-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65 ‡	GRAND
	WALE	LEWALE	

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 1.

APPENDIX 2 (cont'd)

POPULATION BY AGE GROUP, ETHNIC STATUS AND SEX, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

CENTRAL MACKENZIE REGION

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	Age Group	-	0-14	15-19	20-24	1000	67-67	30-34	35-39	70-75	67-57	74 04	40100	55-59	79-09	4 59	TOTAL		0-14) Ц	67-67	47-07	25-29	30-34	35-39	77-07	67-57	50-54	י ע ע	25-59	60-64	65 +	TOTAI.	GRAND

APPENDIX 2 (cont'd)

POPULATION BY AGE GROUP, ETHNIC STATUS AND SEX, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION

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Ή		Native	96	28	12	10	2	8	7	6	9	9	3	80	198	96	25	00	00	10	00	10	9	7	3	7	6	191		0000)
	Age	Group	0-14	15-19	20-24	25-29	30-34	35-39	77-07	45-49	50-54	55-59	79-09	+ 59	TOTAL	0-14	15-19	20-24	25-29	30-34	35-39	77-07	45-49	50-54	55-59	79-09	t 59	TOTAL		GRAND	
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Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 1.

APPENDIX 2 (cont'd)

POPULATION BY AGE GROUP, ETHNIC STATUS AND SEX, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION

_	Age	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	9-09	65 +	TOTAL		0-14	15-19	20-24	25-29	30-34	35-39	77-07	45-49	50-54	55-59	60-64	65 +	TATOR	IOI	GRAND	IOTAL
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FT. WRIGLEY	Non- Native					0								10	ſ						0						0	11		16	
EY	Total	26	6	5	6	3	2	4	7	2	5	3	7	79		36	10	5	3	3	2	9	. 2	-	П	1	5	7.5		154	+01
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JEAN MARIE RIVER	Non- Native	0	0	0	0	0	0	0	0	0	0 (0	0	0			0 (0 (0	0	0	0 (0 (0	0	0	0	0		0	>
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Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 1.

POPULATION BY AGE GROUP, ETHNIC STATUS AND SEX, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION

| Total | 809 | 125 | 100 | TOO | 777 | 76 | 91 | 75 | 55 | 47 | 47 | 28

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 | 107 | 94
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 | 41 | 1,309 | 172 6 |
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| Non-
Native | 237 |) \
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 | 597

 | 218 | 37
 | 61 | 61
 | 52 | 35 | 29 | 29 | 21 | 00 | 2
 | 5 | 558 | 1,155 |
| Native | 371 | 000 | 09 |) v | | 60 | 84 | 39 | 29 | 27 | 31 | 21

 | 45
 | 835

 | [00 | -
 | 94 | 33
 | 36 | . 36 | 29 | 29 | 14 | 18 | 14
 | 36 | 751 | 1.586 |
| Total | 294 | 62 | 2 2 | 7.9 |) 'u' | 40 | 54 | 37 | 31 | 29 | 21 | 11

 | 20
 | 733

 | 286 | 54
 | 65 | 59
 | 54 | 41 | 33 | 34 | 21 | 12 | 5
 | 6 | 673 | 1,406 |
| Non-
Native | 200 | 77 | 36 | 20 10 | t < < | t t | 3/ | 31 | 25 | 20 | 16 | 9

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 | 188 | 36
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 | 65 +
 | TOTAL

 | 0-14 | 15-19
 | 20-24 | 25-29
 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 79-09
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Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 1.

Appendix 3

SIZE AND BY ETHNIC ORIGIN IN MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. FAMILIES BY

LOWER MACKENZIE REGION

				PERSC	PERSONS PER	FAMILY	Y							
Settlement	-	2	6	7	5	9	7	oo	6	10	11	12	13+	TOTAL
Aklavik Native Non-Native Total	20 12 32	8 9 17	12 2 14	11 4	10	010	12	919	9	3 4	H H	1 1 1	010	106 29 135
Arctic Red River Native Non-Native Total	18	וטוע	9 1 9	212	212		2 1 2	1 1 1	1 1 1	1 1 1	1 1 1	H 1 H	1 1 1	37
Ft. McPherson Native Non-Native Total	70 111 81	19 3 22	16	13	∞ I ∞	∞ 1 ∞	1 1	8 1 6	NIN	7 7	നിന	1 1 1	1 1 1	165 16 181
Inuvik Native Non-Native Total	42 133 175	10 42 52	38	11 29 40	6 26 32	10 12 22	5 11 16	13 4 17	7 4	10	NIN	H 27 E	1 9	131 296 472
Tuktoyaktuk Native Non-Native Total	13	7 1 7	∞ 1 ∞	010	010	616	616	616	616	m 1 m	7 1 7	212	H H	06
Total Lower Mackenzie Region Native Non-Native Total	163 156 319	49 51 100	48 34 82	46 34 80	35 29 64	37 12 49	39 11 50	36 5 41	24 5 29	20 1 21 21	13	7 7 9	15	529 341 870

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 5. Source:

Note:

Boarders who were financially independent, such as teachers or nurses in residences, employees living in households. Table 5 also considers boarders, such as unrelated persons living with and dependent on a bunkhouses, or individuals boarding with families, were classified as one person families and heads of family or possibly on welfare, as single person families.

Appendix 3 (cont'd)

FAMILIES BY SIZE AND BY ETHNIC ORIGIN IN MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

CENTRAL MACKENZIE REGION

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DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 5. Source:

Note:

Boarders who were financially independent, such as teachers or nurses in residences, employees living in bunkhouses, or individuals boarding with families, were classified as one person families and heads of households. Table 5 also considers boarders, such as unrelated persons living with and dependent on a family or possibly on welfare, as single person families.

Appendix 3 (cont'd)

FAMILIES BY SIZE AND BY ETHNIC ORIGIN IN MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION

				PFRSONS		PER FAMILY								
Settlement	1	2	3	4		9	7	∞	6	10	11	12	13+	TOTAL
Fort Liard Native Non-Native Total	26	L 2 6	2012	917	L 1 L	5 6	212	7 7	717	2 1 2	1 1 1	1 1 1	1 1 1	66 5
Ft. Providence Native Non-Native Total	26	11 - 11	က၂က	9 10	10	7 1 7	212	7 7	7 1 7	212	1 1 1	1 1 1	1 1 1	78 1 79
Fort Simpson Native Non-Native Total	51 10 61	11 5 16	13	9 6 15	12	986	7 5 22	t 1 3	w 1 w	2 1 2	- 1 -	- 1 -	2 2	115 37 152
Fort Wrigley Native Non-Native Total	27	9	7 7	7 7 7		2 1 6	1 1 1	3 1 2	1 1 1	H 1 H	1 1 3	2 1 2	H H	46 51
Jean Marie River Native Non-Native Total	m 1 m	⊣ 1 ⊢		1 1 1	1 1 1 1	2 1 2	⊢ ⊢	- 1 -	1 1	1 1 1	1 t t	1 1 1		10
Nahanni Butte Native Non-Native Total	2 2	2 - 2	1 1 1	2 1 2	2 - 2	1 1	1 1 1		1 1 1	1 1 1	1 1 1	- 1 -	1 1 1	10

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1969, Table 5. Source:

Note:

Boarders who were financially independent, such as teachers or nurses in residences, employees living in households. Table 5 also considers boarders, such as unrelated persons living with and dependent on a bunkhouses, or individuals boarding with families, were classified as one person families and heads of family or possibly on welfare, as single person families.

Appendix 3 (cont,d)

FAMILIES BY SIZE AND BY ETHNIC ORIGIN IN MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

(cont'd)

UPPER MACKENZIE REGION

	10 11 12 13+ TOTAL		3 2 - 1 91 1 - 331 3 2 1 1 422	11 3 4 5 426 1 - 1 - 379 12 3 5 5 805	39 21 9 20 1,149 2 0 3 1 703
	6	1 1 1	7 2 2	14 2 16	45
	00	1 1 1	5 9 11	20 8 28	73
LY	7	1 1 1	2 8 10	15 10 25	67
PER FAMILY	9	- 1 -	23 29	26 28 54	78
	5	010	10 39 49	41 43 84	∞ ∞ L
PERSONS	7	- 1 -	61	34 70 104	99
	m	1 8 1	45 54	35 51 86	109
	2		16 51 67	54 59 113	129
	П	w 1 w	26 95 121	164 106 270	372
	Settlement	Trout Lake Native Non-Native Total	Hay River Native Non-Native Total	Total Upper Mackenzie Region Native Non-Native Total	Total Impact Corridor Native Non-Native

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 5. Source:

Note:

Boarders who were financially independent, such as teachers or nurses in residences, employees living in bunkhouses, or individuals boarding with families, were classified as one person families and heads of households. Table 5 also considers boarders, such as unrelated persons living with and dependent on a family or possibly on welfare, as single person families.

Appendix 4

IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS SOURCE OF INCOME TOTAL INCOME BY

			LOWER MAG	LOWER MACKENZIE REGION	ION				
		Inuvik			Tuktoyaktuk			Aklavik	
Income Source	Native	Non-Native	Total	Native	Non-Native	Total	Native	Non-Native	Total
Wages/Salaries	\$636,662	\$2,310,933	\$2,947,595	\$296,552	N/Av	\$296,552	\$252,390	\$252,390 \$183,614	\$436,004
Self-Employment	7,044	108,448	115,492	1,121	N/Av	1,121	793	10,700	11,493
Hunting/Trapping-	86,373	1	86,373	9,463		6,463	65,855		65,855
TOTAL EARNED INCOME	\$730,079	\$730,079 \$2,419,381	\$3,149,460	\$307,136	N/Av	\$307,136	\$319,038	\$194,314	\$513,352
Social Tegicletion	73.044	37,882	80,926	28,708	N/Av	28,708	45,053	10,640	53,693
Social Assistance—	29,011		29,011	6,391	1	6,391	29,222	ì	29,222
Other Welfare	31,512	ı	31,512	13,750	4	13,750	24,687	1	24,687
TOTAL UNEARNED INCOME	\$103,567	\$ 37,882	\$ 141,449	\$ 48,849	N/Av	\$ 48,849	\$ 98,962	\$ 98,962 \$ 10,640	\$109,602
TOTAL INCOME	\$833,646	\$833,646 \$2,457,263	\$3,290,909	\$355,985	N/Av	\$355,985	\$418,000	\$418,000 \$204,954	\$622,954

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 59-67, except where otherwise indicated. Source:

Figures for non-natives included N.W.T. Fur Traders' Record Books for Game Year July 1, 1969 - June 30, 1970. in total as no means of clearly breaking them out.

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Social Development, Government of the N.W.T., Yellowknife, N.W.T. for Records of Department of October 1, 1969. 2/

Social Development records; Other Welfare includes such things as training allowances, maintenance of dependent children - i.e., all welfare payments except social assistance payments made for economic reasons (relief). Amounts ascribed to natives only, as no means exist of determining involvement of non-natives. Dept.

Appendix 4 (cont'd)

TOTAL INCOME BY SOURCE OF INCOME IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS

						THE THE PARTY OF THE	TOOL TOWNS		
			LOWER MA	LOWER MACKENZIE REGION	LON				
Income Source	Native	Arctic Red River Non-Native	Total	Native	Fort McPherson Non-Native	Total	Native	Total Region Non-Native	Total
Wages/Salaries	\$ 85,915	ı	\$ 85,915	\$249,214	\$ 104,748	\$353,962		\$1,520,733 \$2,599,295 \$4,120,028	4,120,028
Self-Employment	ı	I	1	307	ı	307	9,265	119,148	128,413
$\frac{1}{1}$ Hunting-Trapping	1,409	ı	1,409	20,174	1	20,174	183,274	1	183,274
TOTAL EARNED INCOME	\$ 87,324	9	87,324	\$269,695	\$ 104,748	\$374,443		\$1,713,272 \$2,718,443 \$4,431,715	4,431,715
Social Legislation	11,084	1	11,084	59,828	672	60,500	187,717	49,194	236,911
Social Assistance $\frac{2}{}$	1,730		1,730	31,508	ī	31,508	97,862	ı	97,862
Other Welfare $\frac{3}{}$	135	1	135	5,528	1	5,528	75,612	4	75,612
TOTAL UNEARNED INCOME	\$ 12,949	ν	12,949	\$ 96,864	\$ 672	\$ 97,536	\$ 361,191 \$	\$ 49,194 \$	410,385
TOTAL INCOME	\$100,273	С	\$ 100,273	\$366,559	\$105,420	\$471,979	\$105,420 \$471,979 \$2,074,463 \$2,767,637 \$4,842,100	\$2,767,637 \$	4,842,100

Appendix 4 (cont'd)

TOTAL INCOME BY SOURCE OF INCOME IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS

	Colville Lake	Native Non-Native Total	\$14,790 - \$14,790	25 – 25	5,205 - 5,205	\$20,020 - \$20,020	7,836 - 7,836	1,603 - 1,603	1	\$ 9,439 - \$ 9,439	\$29,459 - \$29,459
		Total Nat	\$211,340 \$14	1,700	10,862 5	\$223,902 \$20	25,188 7	4,666	6,842	\$ 36,696 \$	\$260,598 \$29
NOI	Fort Norman	Non-Native	\$93,875	I	1	\$93,875	2,592	ı		\$ 2,592	\$96,467
CENTRAL MACKENZIE REGION		Native	\$117,465	1,700	10,862	\$130,027	22,596	7,666	6,842	\$ 34,104	\$164,131
CENTRAL MA		Total	\$290,258	ı	N/Av	\$290,258	3,120	105	1	\$ 3,225	\$293,483
	Norman Wells	Non-Native	\$290,258	1	ŧ	\$290,258	2,976	ı	1	\$ 2,976	\$293,234
		Native	N/Av	N/Av	N/Av	N/Av	\$ 144	105	ı	\$ 249	\$ 249
		Income Source	Wages/Salaries	Self-Employment	Hunting/Trapping $\frac{1}{2}$	TOTAL EARNED INCOME	Social Legislation	Social Assistance $\frac{2}{}$	Other Welfare $\frac{3}{}$	TOTAL UNEARNED INCOME	TOTAL INCOME

Appendix 4 (cont'd)

TOTAL INCOME BY SOURCE OF INCOME IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS

NO
REGI
KENZIE
MACKE
CENTRAL

(Fort Franklin	u.		Fort Good Hope	Hope	T	Total Region	cl	
	Native	Non-Native	Total	Native	Non-Native	Total	Native	Non-Native	d) l	Total
Wages/Salaries	\$ 95,100	\$111,500	\$206,600	\$ 81,492	\$56,340	\$137,832	\$308,847	\$551,973	↔	860,820
Self-Employment	006	2,000	2,900	ı	ı	ı	2,625	5,000		7,625
Hunting/Trapping $^{ m L/}$	20,908	P	20,908	8,950	ı	8,950	45,925	1		45,925
TOTAL EARNED INCOME	\$116,908	\$116,500	\$233,408	\$ 90,442	\$56,340	\$146,782	\$357,397	\$357,397 \$556,973	€	914,370
Social Legislation	29,922	1,536	31,458	31,592	540	32,096	92,090	7,608		869,66
Social Assistance $\frac{2}{}$	1,479	ı	1,479	5,265	ſ	5,265	13,118	ı		13,118
3/	11,054	1	11,054	18,832	1	18,832	36,728	1		36,728
TOTAL UNEARNED INCOME	\$ 42,455	\$ 1,536	\$ 43,991	\$ 55,689	\$ 540	\$ 56,193	\$141,936 \$	\$ 7,608	\$	149,544
	\$159,363	\$118,036	\$277,399	\$146,131	\$46,844	\$202,975	\$499,333	\$499,333 \$564,581 \$1,063,914	\$1,0	63,914
				The second secon						

Appendix 4 (cont'd)

TOTAL INCOME BY SOURCE OF INCOME IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS

REGION	
MACKENZIE	
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Income Source	Native	Fort Simpson Non-Native	Total	Native	Fort Liard Non-Native	Total	Native	Fort Providence Non-Native	Total
Wages/Salaries	\$156,887	\$257,841	\$414,728	\$56,106	\$38,680	\$ 94,786	\$ 93,835	N/Av	\$ 93,835
Self-Employment	4,800	2,000	6,800	1,020	ı	1,020	1	N/Av	1
Hunting-Trapping $1/$	24,115	1	24,115	12,784	1	12,784	19,322	1	19,322
TOTAL EARNED INCOME	\$185,802	\$259,841	\$445,643	\$69,910	\$38,680	\$108,590	\$113,157	N/Av	\$113,157
Social Legislation	24,848	5,136	29,984	23,928	1,809	25,737	34,504	\$216	34,720
Social Assistance $\frac{2}{}$	$10,652 \frac{4}{}$	- /+	10,652	Incl	Included in Fort Simpson	Simpson	43,202	ı	43,202
Other Welfare $\frac{3}{}$	$30,879 \frac{4}{2}$	- /-	30,879	Incl	Included in Fort Simpson	Simpson	13,442	1	13,442
TOTAL UNEARNED INCOME	\$ 66,379	\$ 5,136	\$ 71,515	\$23,928	\$ 1,809	\$ 25,737	\$ 91,148	\$216	\$ 91,364
TOTAL INCOME	\$252,181	\$264,977	\$517,158	\$93,838	\$40,489	\$134,327	\$204,305	\$216	\$204,521

Payments for Fort Simpson include those for Fort Liard, Fort Wrigley, Jean Marie River, Nahanni Butte and Trout Lake. 7

Appendix 4 (cont'd)

TOTAL INCOME BY SOURCE OF INCOME IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS

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		Fort Wrigley	7.	J.	Jean Marie River	iver		Nahanni Butte	٥
Income Source	Native	Non-Native	Total	Native	Non-Native	Total	Native	Non-Native	Total
Wages/Salaries	\$33,829	\$46,025	\$ 79,854	\$ 4,374	ı	\$ 4,374	\$10,900	1	\$10,900
Self Employment	1	200	200	ı	ı	1	1	ı	ı
Hunting/Trapping $\frac{1}{2}/$	8,648		8,648	2,927	ŧ	2,927	2,929		2,929
TOTAL EARNED INCOME	\$42,477	\$46,525	\$ 89,002	\$ 7,301	ą.	\$ 7,301	\$13,829		\$13,829
Social Legislation	10,500	828	11,328	4,368	ı	4,368	2,178	N/Av	2,178
Social Assistance $\frac{2}{}$	Includ	Included in Fort S.	Simpson	Includ	Included in Fort Simpson	Simpson	Incl	Included in Fort Simpson	Simpson
Other Welfare $\frac{3}{2}$	Inclu	Included in Fort Simpson	impson	Includ	Included in Fort Simpson	Simpson	Incl	Included in Fort Simpson	Simpson
TOTAL UNEARNED INCOME	\$10,500	\$ 828	\$ 11,328	\$ 4,368	1	\$ 4,368	\$ 2,178	B .	\$ 2,178
TOTAL INCOME	\$52,977	\$47,353	\$100,330	\$11,669	g.	\$11,669	\$16,007		\$16,007

Appendix 4 (cont'd)

TOTAL INCOME BY SOURCE OF INCOME IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS

UPPER MACKENZIE REGION	Trout Lake Hay River Total Region	Native Non-Native Total Native Non-Native Total Native Total	\$ \$259,993 \$2,087,108 \$2,347,101 \$ 615,924 \$2,429,654 \$3,045,578	23,775 225,943 7,988 226,275 234,263	\$ 5,932 \$ 5,932 8,239 - 8,239 84,896 - 84,896	\$ 5,932 - \$ 5,932 \$270,400 \$2,310,883 \$2,581,283 \$ 708,808 \$2,655,929 \$3,364,737	6,240 - 6,240 36,308 46,918 83,226 142,874 54,907 197,781	/ Included in Fort Simpson 47,704 - 47,704 101,558 - 101,558	Included in Fort Simpson 50,195 - 50,195 94,516 - 94,516	ME \$ 6,240 - \$ 6,240 \$134,207 \$ 46,918 \$ 181,125 \$ 338,948 \$ 54,907 \$ 393,855	23.758.592
	Trout		1					Included in For	Included in For		77
		Income Source	Wages/Salaries	Self-Employment	Hunting/Trapping $\frac{1}{2}$	TOTAL EARNED INCOME	Social Legislation	Social Assistance $\frac{2}{}$	Other Welfare $\frac{3}{}$	TOTAL UNEARNED INCOME	

APPENDIX 5

OVER BY SOURCE OF INCOME AND INCOME CATEGORY, MACKENZIE IMPACT CORRIDOR

APPENDIX 5 (cont'd)

NATIVE AND NON-NATIVE POPULATION 14 YEARS OF AGE AND

OVER BY SOURCE OF INCOME AND INCOME CATEGORY, MACKENZIE IMPACT CORRIDOR

TOTAL LOWER MACKENZIE REGION

	\$1-399	+400-	-00/\$	*1,000-	2,999	3,999	4,999	5,999	6,699	& over	Spec.	None	Total
ative	Food	24	27	66	50	29	32	26	73	9	58	195	637
	7	15	13	31	35	19	8	m	80	ı	20	442	634
	T 58	39	07	130	85	87	040	29	81	9	78	637	1,271
on-Nativo		Ω	7	7	9	9	9	9	87	108	24	38	302
		6	-	6	∞	13	18	13	70	9	12	109	275
	T 14	1.2	5	16	14	19	24	19	157	114	36	147	577
otal		27	31	106	56	35	38	32	160	114	82	233	939
		24	14	07	43	32	26	16	78	9	32	551	606
	T 72	51	45	146	66	67	79	8 7	238	120	114	784	1,848
Native	11	82	11	43		t	1	1	ı	ı		380	637
	9	15	11	45	_	1	ı	1	1	1	1	967	634
	T 185	97	22	88	2	1	1	l	ı	1	-	876	1,271
on-Native	6	14	3	∞	I	1	1	I	Н	1	1	184	302
	1	1	2	7	1	1	1	ı	I	1	ı	253	275
	T 105	14	5	15	1	1	1	1		ı	1	437	577
otal		96	14	51	-	1	ı	î		I	\vdash	297	939
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ative		26	29	131	54	38	32	26	72	6		153	637
		25	21	76	38	20	10	3	∞	1	15	350	789
	T 102	51	50	207	87	58	42	29	80	6		503	1,271
on-Native	-	10	5	∞	9	7	9	9	88	109	15	31	302
		7	7	15	8	13	18	13	69	7	11	101	275
	T 25	12	6	23	14	20	24	19	157	116	26	132	577
otal	7	31	34	139	09	45	38		160	118	53	184	939
	F 82	32	25	91	41	33	28	16	77	7	26	451	506
	12	63	59	230	101	78	99		237	125	79	635	1,848

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 25 to 30. Source:

APPENDIX 5 (cont'd)

NATIVE AND NON-NATIVE POPULATION 14 YEARS OF AGE AND

SOURCE OF INCOME AND INCOME CATEGORY, MACKENZIE IMPACT CORRIDOR OVER BY

TOTAL CENTRAL MACKENZIE REGION

		\$1-399	-007\$	\$700	\$1,000-	\$2,000	\$3,000	\$4,000-	\$5,000-	\$6,000-	\$10,000 & over	Not Spec.	None	Total
Native	×	22	27	10	24	17	15	7	2	=	2	0	111	7,70
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	H	33	30	12	32	21	19	9	3	11	2	. 50	299	473
Non-Native	\mathbb{Z}	ł	1	2	П	1	ı	2	2	22	26	Ľ	V	99
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		33	-	2	3	3	7	7	2	29	27	00	36	122
Total	\mathbb{M}	22	27	12	25	17	15	9	7	33	000	7	117	313
	Ĺτι	14	7	2	10	7	00	7		7	-	- 6	218	282
	⊟	36	31	14	35	24	23	10	5	70	29	13	335	595
Native	Σ	53	22	3	3	ı	1	ı	1	ŧ	f	10	156	176
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Hunting, Trapping, Fishing

APPENDIX 5 (cont'd)

NATIVE AND NON-NATIVE POPULATION 14 YEARS OF AGE AND

SOURCE OF INCOME AND INCOME CATEGORY, MACKENZIE IMPACT CORRIDOR OVER BY

TOTAL CENTRAL MACKENZIE REGION

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tive M T T T T T T	35	14	38	23	20	9	3	11	2	00	257	473
EHH XHH XHH P^		6	ı	,	1	2	2	21	26	9	9	99
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, XFH XFH		2	7	7	7	7	2	28	27	6	36	122
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>		0	1	- 1	1	m	2,	21	27	2	9	99
		7 1	77	~	7	2	1	7	1	3	28	56
7 4	- F	2	7	3 (2)	7	5	2	28	28	5	34	122
4 7		- ۱	23	20	16	10	7	32	29	9	53	313
		17	37	27		7	1	7	1	9	162	282
F 52	47	30	100	27	24	14	5	39	30	12	215	59

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 25 to 30.

Source:

APPENDIX 5 (cont'd)

NATIVE AND NON-NATIVE POPULATION 14 YEARS OF AGE AND

OVER BY SOURCE OF INCOME AND INCOME CATEGORY, MACKENZIE IMPACT CORRIDOR

TOTAL UPPER MACKENZIE REGION

	\$1-399	-007\$	\$ 700	\$1,000- 1,999	\$2,000-	\$3,000	\$4,000- 4,999	\$5,000-	\$6,000- 9,999	\$10,000 & over	Not Spec.	None	Total
Native		37	12	37	16	13	α		21		ı		
	F 11	5	7	12	9	7) v	17) <u> </u>	-	3/	238	482
		42	16	67	22	20	14	17	32	l	1/2	31/	388
Non-Native	M 2	7	7	14	ư	L	C) r	4 1	1	000	0
		10	7	23) () [0.1		118	18	41	9/	369
	1 F	T F		00	L9	7.7	23	12	24	n	31	157	356
		7.7	11	/ +/	57	26	33		142	84	72	233	725
Total	M 39	77	16	51	21	18	18	21	149	83	78	317.	0 6 7
		15	11	45	25	28	29	14	25) (c	0 0	7.77	1777
		59	27	96	97	97	47	35	174	85	126	788	1 595
Native	M 54	29	13	9	_	-	c				1 (•
	I I	ı	1		1 1	~	7	1	ŀ	I	34	342	482
	T 54	50	13	V] -	l c	I	ı	ı	_	387	388
		j	1	0	7	7	7	ı	ı	i	35	729	870
Non-Native	- Ш	1	ı	ı	1	1	\vdash	ı	ı	ı	9	362	360
		f	ı	1	I	I	1	1	1	î		256	256
	1	1	1	1	ı	1	-	1	ı	ı	9	718	725
Total	M 54	29	13	9	_	_	C					1 -	7 1
		1	ı	- 1	i	4	7	ĵ	ı	1	40	104	851
	T 54	29	13	9	-	I ←⊣	ľΩ	1 1	1 1	i I	7,1 1		
Native		1	ı	1	-							0-	1,393
	F	-	2	1	4 1	l ~	1	1	1	ı	4	475	482
		-	2	1	-	4 -)	i	ŧ	1	-	383	388
Mon-Native		-			+ +	4	ı	1	1	ŧ	4	828	8/0
}		7	1	ı	7)	1	2	14	10	20	321	369
	T =	1 .	-	ı	ı	1	1	1	-	90	2	352	356
		-	I	1	П	ł	1	2	15	10	22	673	725
Total		1	1	ı	6	t	ı	c		(ò) 1
	F 2		2	1)	-	ı	7	14	OT	7.7	96/	851
		0	1 0		1 (7	ı	1	~	ŀ	. 2	735	744

APPENDIX 5 (cont'd)

NATIVE AND NON-NATIVE POPULATION 14 YEARS OF AGE AND

SOURCE OF INCOME AND INCOME CATEGORY, MACKENZIE IMPACT CORRIDOR OVER BY

TOTAL UPPER MACKENZIE REGION

	\$ -T	-399	-007\$	+700-	\$1,000- 1,999	\$2,000-	\$3,000-	\$4,000-	\$5,000- 5,999	\$6,000-	\$10,000 & over	Spec.	None	Total
		L		21	0.7	00	77	6	16	32	Н	52	152	482
Native	Z :	65	20	TC	1 40		+ 00 +			~	ı	1.7	312	388
	Fil (12	9 1	270	71	96	22		18	33	П	69	797	870
	E-1	//	90	10	75		1	1		1	(,	0.1	076
Mon-Mative	≽	2	9	4	14	9	5	10	7	133	90	19	15	200
OII Mactor	<u> </u>	16	10	7	33	19	21	23	12	25	m ·	33	154	200
	- E		16	11	47	25	26	33	19	158	93	76	185	(7.7)
			Ü	Li C	7 7	36	19	19	23	165	91	113	183	851
Total	Z	19	26	33	40	2 Z	000	20	7 -	0	3	50	997	744
	F4 E	20 0	16	γ α 7	0 0 0	51	67	67	37	191	76	163	649	1,595
	-	56	7			C		1	1	ŀ	1	1	279	482
Native	M	98	39	14	20	7	ł	1				ı	317	388
	[Xii	24	7	7	35		1	1	1	t	1	1	503	870
	L	122	97	21	85	3	I	I	1	ļ	8	I	000	
N-dollarive	Σ	176	16	3	11	-	←	1	}	ı	1		160	369
	[II	00	5	2	2	1	1	1	I	ı	i	l -	7.00	707
	· [184	21	5	13	proof.	П	1	1	1	1	⊣	444	
,		, c	L L	7 1	13	ď	_	1			ì	-	439	85
Total	Σ	7/7	00	/ 1	01) -	4 :		1		1	1	653	
	II	32	7.7	5 0	/ 0	7		1	ı	1	1	-	1,092	1,59
	_	306	10	07	30	t	4		!	(٢	CC	100	7,83
Motito	×	69	78	77	66	22	15	6	17	33		32	TOOT	7000
act of	, : <u>F</u>	30	10		45	6	6	9	2	-	à	7.7	507	000
	4 E	92	2 00	55	144	31	.24	15	19	34	←	77	353	0/8
		000	O	y	23	r	7	6	00	132	91	27	24	369
Non-Native	E F	0 7 0	17.	σ	3 2	20	21	23	12	25	3	30	147	356
	ы E	ο α	23	14	56	25	28	32	20	157	76	57	171	1.7
	4		1 1	- (70	22	00	25	165	92	59	124	00
Total	Σ	90	2/	200	777	7.7	370	29	14	26	3	42	400	744
	ĮT4	20	77	13	_	67		77	30	101	9 5	101	524	1,5
	E	1/10	200	69	200	99	75	/ +>	23	7	00	1	i	

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 25 to 30.

Source:

APPENDIX 5 (cont'd)

NATIVE AND NON-NATIVE POPULATION 14 YEARS OF AGE AND

OVER BY SOURCE OF INCOME AND INCOME CATEGORY, MACKENZIE IMPACT CORRIDOR

TOTAL MACKENZIE IMPACT CORRIDOR

	\$1.	\$1-399	-007\$	\$700-	\$1,000- 1,999	\$2,000-2,999	\$3,000-	\$4,000- 4,999	\$5,000-	\$6,000- 9,999	\$10,000 & over	Not Spec.	None	Total
Wative	M	80	98	51	144	78	5.5	72	87	112	10	7.8	787	36
ŢJI	ĨŦ,	54	24	18	64	45	30	16	9	577	01	37	700	900,
SIB	E	134	110	69	193	123	85	228	67	121	10	115	1,547	2,614
Non-Native	\mathbb{Z}	∞	10	10	21	11	11	17	13	225	206	67	١.	73
8 8	ޱi	26	20	∞	777	30	38	43	25	101	6	45	298	687
ges	H	34	30	18	69	41	67	09	38	326	215	112	436	1,424
W Total	Σ	88	96	61	165	89	99	59	56	337	216	145	725	
	Γz	80	77	26	93	75	68	59	31	110	6	82	1,258	1,935
	E	168	140	87	258	164	134	118	87	447	225	227	0	,03
Native	\mathbb{M}	135	63	24	21	7	m	n	ŧ	2	ı	78		
	[II.	7	ł	1	ì	1	1	1	ı	1	1	2	, 23	
Bui	H	142	63	24	21	7	3	m	I	2	ı	80	2,272	2,614
S Non-Native	\mathbb{Z}	2	-	f	1	i	ğ		1	-	1	9	726	737
म	[iii	1	1	ı	ı	1	ł	ı	i	1	9		686	687
	H	2	1	1	ı	ı	1	-	1	1	ı	7	1,412	1,424
Total	\mathbb{M}	137	79	24	21	4	n	4	1	3	ı	84		
	Ĭ.,	7	1	1	1	ŀ	1	1	all and a second	1	ı	33	6	93
	H	144	9	24	21	4	3	7	ı	3	ł	87	3,684	4,038
Native	\mathbb{M}	7	П	1	ı	2		ł	1	. 1	1	6		
иə	[T i	15	7	~	П	1	1		\$	ı	ŧ	· M	1,221	1,248
шХо	H	22	2	3	1	2	2	1	f	1	1	12	•	2,614
Non-Native	\mathbb{M}	I	2	1	⊷	\vdash	1	1	7	15	19	27	999	737
Eur.	<u>[</u>		1	A.	i	f	1	1	1			7	680	687
[-]	L	П	2	_	1	Н	1	1	4	16	20	31	1,346	1,424
Se Total	M	7	3	Π	-	3	7		7	15	19	36		10
	[III	16	4	3	П	1	Г	1	1	-			n ,	9.1
	H	23	7	7	2	3	2	П	47	16	20	43	3,913	4.038

Hunting, Trapping,

APPENDIX 5 (cont'd)

NATIVE AND NON-NATIVE POPULATION 14 YEARS OF AGE AND

MACKENZIE IMPACT CORRIDOR SOURCE OF INCOME AND INCOME CATEGORY, OVER BY

TOTAL MACKENZIE IMPACT CORRIDOR

		\$1-399	-007\$	-002\$	\$1,000- 1,999	\$2,000-	\$3,000-	*4,000- 4,999	5,999	666,6	& over	Spec.	None	Total
				ı	-	Co	n, O	57	77	116	6	115	428	1,366
Native	\boxtimes	118	104	0/	T09	2, F	33	16	9	6	1	40	930	2,
	[II	73	26	21	51	40	10	T 0	L C	125	6	155	1,358	2,614
	⊢	191	130	91	220	134	06	ТО	00	711		1		
			(-	10	7		18	15	241	224	91	75	737
Non-Native	\mathbb{Z}	6	2	DT OT	77		τ C	87	25	102	10	48	293	687
	Ţ	26	20	∞	77	000		17	07	٤7٤	234	139	368	1,424
	⊣	35	29	18	69	43	4	TO	7			,	(
		1	C	00	100	102	70	63	59	357	233	206	503	2,1U3
Total	X	127	113	00	5	707	09	59	31	111	10	88	1,223	
	Ti !	66	46	67	780	771	139	122	06	468	243	294	•	4,038
	H	977	T 29	TOA)		1					-	777	
No this	×	276	152	34	123	3	I	1	I	1	i	٦ -	083	1 248
ALLVE	; [z	101	34	23		2	l	1	l	l	1	- C	1 760	P.
	4 E	377	186	57	227	5	1	I	ŀ	1	ı	7	6	•
	4) ((C	_	1	1	H	1	-	376	737
Non-Native	Σ	299	32	9	19	7	4		1	1	ı	1	979	9
	[II.	21	5	7	II	1	l =	1			\$		1,022	1,42
	\vdash	320	37	10	30	2	→	ŧ	I	4			1	
		E 1	0	_	17.0	Ľ		1	1		1	2	1,153	2,103
Total	Σ	575	184	40	7 h T) (4		ı	ł	1		1,629	1,93
	[II	122	39	27	115	7	1 -			_	1	m	2,782	4,03
	[-	169	223	67	257		Т	l	I	4				1
		i.	-		203	90	69	48	45	116	12	74	300	1,366
Native	Σ	CTT	106	76	127	2,5	7 6	00	9	6	ı	30	73	1,248
	[Ti	125	45	153	1.747	142	102	99	51	125	12	104	1,037	2,61
	i	047	CCT	CCT	t] r	7 -	0	16	241	227	77	61	737
Non-Native	Σ	747	14	13	31	T	14	01	HC	101		77	276	
		32	22	12	52	31	300	43	C7	TOT	11000	α α	337	_
	+ E	79	36	25	83	42	52	61	41	245				1
	1		7	-	20%	107	833	99	61	357	(1	118	36	2,
Total	Σ	162	120	201	906	77	71	61	31	110	11	74	01	
	[Ti	157	/1	53	907	100	7 7 7 7	107	00	747		192		
	E	210	101	000	530	184	104	171	76	101				

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 25 to 30.

Source:

APPENDIX 6

NATIVE AND NON-NATIVE FAMILIES BY SOURCE OF INCOME AND INCOME CATEGORY IN MACKENZIE IMPACT CORRIDOR

TOTAL LOWER MACKENZIE REGION

	\$1-399	\$400-	\$700- 999	\$1000- 1999	\$2000-	\$3000-	-0007\$	\$5000-	-0009\$	\$10,000 & over	Not Spec.	None	Total
Wages and Salaries Native Non-Native Total	14 2 16	14 4 18	17	65 6 71	43 7 50	35 13 48	31 9 40	26 12 38	75 119 194	24 124 148	21 22 43	164 22 186	529 341 870
Hunting, Trapping, Fishing Native Non-Native Total	30	11 12 12	010	9 10	е 1 г	~ 1 ~	1 1 1	- 1 - 1	7 11 7	1 - 1	33 1 34	432 335 767	529 341 870
Self-Employment Native Non-Native Total	r	3 1 2	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	1 1 2	- 1 - 1	п . г	1	1 44	1	100	7 6 13	509 320 829	529 341 870
Total Earned Income Native Non-Native Total	14	12 4 16	17	60 7	41 7 48	13 40	19 28	23 13 36	66 118 184	20 135 155	23 45	207 12 219	529 341 870
Total Unearned Income Native Non-Native Total	168 103 271	89 13	16 4 20	54 12 66	23	1 7 7	1 1 1	1 1 1	1	1 1 1	1 1 1	179 207 386	529 341 870
Total Income Native Non-Native Total	47 10 57	17 3 3 20	13	102 10 112	58 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	50 10 60	30	28 13 41	78 120 198	33 136 169	10	61 7 68	529 341 870

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 37 to 42. Source:

APPENDIX 6 (cont'd)

NATIVE AND NON-NATIVE FAMILIES BY SOURCE OF INCOME AND INCOME CATEGORY IN MACKENZIE IMPACT CORRIDOR

TOTAL CENTRAL MACKENZIE REGION

	\$1-399	\$400-	\$ 700- 999	\$1000- 1999	\$2000- 2999	\$3000-	\$4000-	\$5000-	-0009\$	\$10,000 & over	Not Spec.	None	Total
Wages and Salaries Native Non-Native Total	12 - 12	20 - 20	12 1 13	23 2 25	13	14 1 15	v w ∞	8 7 0	11 24 35	6 29 35	7 4 9	70 9	194 73 267
Hunting, Trapping Fishing Native Non-Native Total	42	1 8	919	N 1 N	1 1 1	1 1 1	1 1 1	1 1 1	1 1	1 1 1	∞ 1 ∞	115 73 188	194 73 267
Self-Employment Native Non-Native Total	10	7 1 7		1 1 1	1 1 1	1 1 1	1 1 1	1	1 1 1	1 1 1	3 2 1	181 70 251	194 73 267
Total Earned Income Native Non-Native Total	. 16	20	10	30 2 32	16	13 1 14	7 3 10	0 7 0	12 23 35	30	0 4 5	56 62	194 73 267
Total Unearned Income Native Non-Native Total	58 31 89	36	12 - 12	40	10	1 1 1	1 1 1	1 1 1	1 1 1	4 1 1		37 38 75	194 73 267
Total Income Native Non-Native Total	13	18	17 1 18	56 2 58	20	19 10 20	10 4 4 14	8 2 10	12 23 35	30	3 1 1 2	13 5 18	194 73 267

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 37 to 42. Source:

APPENDIX 6 (cont'd)

NATIVE AND NON-NATIVE FAMILIES BY SOURCE OF INCOME AND INCOME CATEGORY IN MACKENZIE IMPACT CORRIDOR

TOTAL UPPER MACKENZIE REGION

alaries alaries 3 32 9 41 18 13 6 17 tive 3 3 37 12 64 33 24 22 apping, tive 3 2 3 17 9 1 1 1 1 2 2 tive 4 2 2 2 2 27 anent anent 4 2 2 2 2 1 1 1 2 2 tive 4 3 4 3 2 2 1 4 11 17 11 aned Income 4 3 4 3 2 2 1 4 1 1 17 11 tive 115 46 16 48 19 3 2 2 1 4 1 1 17 tive 12 49 39 28 84 49 22 10 16 tive 4 3 2 8 4 49 22 10 11 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1		\$1-399	-007\$	\$700-	\$1000- 1999	\$2000-	\$3000-	-0007\$	\$5000-	-0009\$	\$10,000 & over	Not Spec.	None	Total
35 23 17 9 1 1 2 - 1 1 3 - 1 3 - 1 3 3 - 1 3 3 3 5 23 17 99 11 1 1 1 1 3 3 - 1 4 2 2 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Wages and Salaries Native Non-Native Total	30	32 5 37	9 3 1 2 1 2	41 23 64	18 15	13 11 24	6 16 22	17 10 27	33 94 127	6 120 126	30	191 44 235	426 379 805
Come 45 37 27 48 22 14 9 15 48 41 30 68 36 25 26 26 Income 115 46 16 48 19 3	Hunting, Trapping, Fishing Native Non-Native Total	35 1 36	23	17	010	- 1 -	- 1 -	3 1 2	1 1 1	1 1 1	1 1 1	32 38 38	306 371 677	426 379 805
45 37 27 48 22 14 9 15 3 4 3 20 14 11 17 11 48 41 30 68 36 25 26 26 115 46 16 48 19 3 - - 181 20 3 13 2 1 - - 296 66 19 61 21 4 - - 49 39 28 84 49 22 10 16 24 7 5 24 17 10 17 12 73 46 33 108 66 32 20 22	Self-Employment Native Non-Native Total	7 1 3	1 1 2	010	1 1 1	7 - 1 - 2		1 1 1	1 7 7		10	4 20 24	414 329 743	426 379 805
115 46 16 48 19 3	Total Earned Income Native Non-Native Total	45	37 4	27 3	48 20 68	22 14 36	14 11 25	9 17 26	11 26	36 102 138	6 134 140	38 45 83	129 15 144	426 379 805
tive 24 7 5 24 17 10 16 12 10 16 15 10 16 17 12 10 17 12 10 17 12 10 17 12 10 17 12 10 17 12 10 17 10 17 10 17 10 17 10 17 10 17 10 10 17 10 10 10 10 10 10 10 10 10 10 10 10 10	Total Unearned Income Native Non-Native Total		46 20 66	16	48 13 61	19 2 21	e ⊢ 4	1 1 1	1 1 1	1 1 1	1 1 1	1	179 158 337	426 379 805
07 /7 7C 00 00T CC 04 C/	Total Income Native Non-Native Total	49 24 73	39 7 46	28	84 24 108	17	22 1.0 32	10 17 27	16	36 101 137	136	14 19 33	72 7	426 379 805

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 37 to 42. Source:

APPENDIX 6 (cont'd)

NATIVE AND NON-NATIVE FAMILIES BY SOURCE OF INCOME AND INCOME CATEGORY IN MACKENZIE IMPACT CORRIDOR

	Total	1,149 793 1,942	1,149 793 1,942	1,149 793 1,942	1,149 793 1,942	1,149 793 1,942	1,149 793 1,942
	None T	425 72 497	853 779 1,632	1,104 719 1,823	392 33 425	395 403 798	146 19 165
	Not Spec.	53 61 114	73 80	12 28 40	63 71 134	7 1 7	26 31 57
	\$10,000 & over	36 273 309		- 19 19	32 299 331	1 1 1	46 302 348
	-0009\$	119 237 356	7 1 1	_ 16 16	114 243 357	p=1 p=4	126 244 370
	\$5000-	49 24 73		7 7	44, 26. 70	1 1 1	52 27 79
	-0007\$	42 28 70	3 1 2	1 7 7	35 29 64	1 1 1	50 31 81
CORRIDOR	\$3000-	62 25 87	2 1 2	2 1 2	54 25 79	2 2 3	91 21 112
TOTAL CO	\$2000-	74 23 97	2 1 2	3 1 2	79 22 101	52 3	127 26 153
	\$1000- 1999	129 31 160	23 1 24	7 11 2	138 29 167	142 26 168	242 36 278
	\$ 700- \$ 999	38 43 43	32 32	6 4 4	54 4 58	44 7 51	69
	-007\$	66 9	52 1 53	7 5 22	69 8 77	171 35 206	74 10 84
	\$1-399	56 5 61	107 3 110	20 1 21	75 4 79	341 315 656	109 37 146
		Wages and Salaries Native Non-Native Total	Hunting, Trapping, Fishing Native Non-Native Total	Self-Employment Native Non-Native Total	Total Earned Income Native Non-Native Total	Total Unearned Income Native Non-Native Total	Total Income Native Non-Native Total

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 37 to 42. Source:

APPENDIX 7

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I.

TOTAL LOWER MACKENZIE REGION

			_											_								
ork	Total	0	1 5		77	75	200	, r	45	0 88	/		2	9	9	0 0	1 CC) I	0	1 4	552	577
Without Work	Female	_	10	J -	Y V	0 0	1 7	. 9	1.5	597	634		-	-	· I	ı	ı	ı	ı	-	272	275
اک	Male	-	13	21	37	52	77	746	30	391	637		1	-	9	000) (r) 1	2	l (1)	280	302
ment	Total	m	· (**) (") (")	-	l	ی ا	. 2	1,271		1	i	2	1	_	l 	1	16	558	577
Self-Employment	Female	\vdash	c) -	10	1 [ŀ	_	ım	\sim	634		1	1	1	ı	ı	ı	1	1	274	275
Se	Male	2	ı	2	- 1	1	\vdash	1	3	628	\sim		1	ı	2	1		1	ı	15	284	302
Fishing	Total	r	30		<u> </u>	5	7	2	32	,14	27		1		1		[1	ı	m	571	577
Trapping	Female	1	2	1	2	1	1	ı	Н	629	634		ı	ı	1	I	Н	ı	1	1	274	275
Hunting	Male	Н	28	18	29	. 5	7	5	31	516	637		1	-	ı		ı	ı	1	3	297	302
ary	Total	30	96	91	9	56	26	19	188	701	1,271		2	24	12	19	13	15	26	303	160	577
Wages and Salary	Female	∞	30	20	14	14	7	∞	9/	457	634		7	12	5	15	∞	5	15	104	107	275
Wage	Male	22	99	71	50	42	19	11	112	244	637	,	1	12	7	4	5	10	11	199	53	302
	No. of Weeks	1-3	4-10	11-17	18-24	25-31	32-38		46-52	None	Total	(1-3	4-10	11-17		25-31		39-45		None	Total

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

LOWER MACKENZIE REGION

INUVIK

									_													
ork	Total	,	-	2	C	9	12	2	7	10	301	350	2	9	9	2		1	2	3	984	508
Without Work	Female	,	ril .		1	ı	1	1		2	173	179	 1		ı	ı	ı	1	1	I	240	242
3	Male		1	7	3	9	12	7	9	8	128	171	1	5	9	2	-	1	2	m	246	266
ment	Total		I	ı	Н	C	ı	1	ı	7	342	350	1	1	2	f	t	ı	1	14	492	208
Self-Employment	Female		1	1	\vdash	2	1	ı	1	3	173	179	1	ı	ı	i	ı	ı	1	1	241	242
Se	Male		ı	1	ı	П	ı	I	1	1	169	171	1	I	2	1	ı	1	1	13	251	266
Fishing	Total		1	Н	7	7		2	2	1.7	319	350	1	Н	1	t		ı	1	ı	206	508
Hunting Trapping Fishing	Female		ı	ı	ł	ŀ	ı	1	1	ı	179	179		1	ı	1	Н	1	ı	ı	241	242
Hunting	Male		1	П	7	7	-	2	2	17	140	171	989	٣	ı	ı	1	I	1	ı	265	266
ary	Total		4	16	23	15	18	4	10	91	169	350	7	21	11	18	10	14	24	269	137	508
s and Salary	Female		2	7	6	7	5		3	28	117	179	m	10	5	14	7	4	13	91	95	242
Wages	Male		2	6	14	∞	13	m	7	63	52	171	-		9	7	3	10	11	178	42	266
	No. of Weeks		1-3	4-10	11-17	18	25-31	(,,	(-)	46-52	None	Total	1-3	- 1			고 25-31				None	Total

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

LOWER MACKENZIE REGION

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.1	Total		1	7	3	∞	7	6	10	18	235	292	1	ı	ı	ı		ı	1	1	48	
Without Work	Female T		1	ŀ	1	7	1	n		00		53	-	1	1	1	ı	1	1	ı	21	
Wi	Male		1	2	m	9	7	9	7	10	98	139	ī	ı	1	1	-	ı	ı	t	27	
nent	Total	c	7	Η	2	ı	ı	ł	ı	П	286	292	1	1	ı	ı	Π	ı	ı	2	97	
Self-Employment	Female	٢	-1		ł	ı	ı	ł	ł	1	151	153	1	1	ı	1	I	ı	ı	1	21	
Sel	Male	-	-1	ł	2	ı	ı	i	ı	-	135	139		ſ	ı	ı	Н	ı	ı	2	25	
fishing	Total	:	1	10	9	10	ı	ı	3	∞	255	292	ı	1	ı	\vdash	1	ı	ı	3	45	
ting Trapping Fishing	Female		1	2	1		ı	1	1	Н	149	153		ı	1	ı	1	ı	ı	1	21	
Hunting T	Male		1	∞	9	6	1	ı	3	7	106	139	1	ı	1	-	ı	ı	ı	3	24	
	Total	-	TO	32	14	11	10	9	2	36	171	292	-	2		H	2	ı		21	20	
and Salary	Female	C	7	13	4	7	7	3	2	19	66	153	Н	Н	ŀ	7	Н	1	1	7	6	
Wages	Male	o	0	19	10	7	9	3	ı	17	72	139	ı	Н	1	I	-	I	1	14	11	
	No. of Weeks	د 1	C_T	4-10	11-17	18-24	25-31	32-38	39-45	46-52	None	Total	1-3	4-10	11-17	18-24	25-31	32-38	39-45	46-52	None	

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENCAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

LOWER MACKENZIE REGION

ARCTIC RED RIVER

	Total	45 3 1 1 2 5 6 6 6 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
Mor	Female T	7 5 7 7 8 7 8 7 8 7 8 7 8 7 8
	Male	36 36 36 36
rment	Total	1 1 1 1 1 1 9 7 9
Self-Employment	Female	28 28 28 28 28
Se	Male	- - - 36 36 36
Fishing	Total	- 1 - 5 - 2 - 2 - 1 4 - 4 28 49 28 64
Hunting Trapping Fishing	Female	
Hunting	Male	17 21 36 36 36
ary	Total	1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Wages and Salary	Female	2 1 1 1 1 5 7 8 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Wage	Male	1 4 4 4 3 4 4 3 1 1
	No. of Weeks	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None
		Non-Native Native

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

LOWER MACKENZIE REGION

FORT MCPHERSON

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ork	Total		1	ı	~	† r	77	17	17	20	U	C77	305			ì i	l	I	l -	-	1	l -	٦ ٥	20
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13	Male		-	1	c) ' [- T	17	77	07	U L	()	149		1	1	1	l !	l - -	-1	ı	I	- 1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
yment	Total	T	-1	2	ı	1	1 1	1	ı	ı	1 000	200	305		ı	ı	ı			١	I		1 0	20
Self-Employment	Female		1	2	1	ı				1	1 5 /	T 74	156		1	ı	ı	I	I	.	{		10	12
Se	Male	r		ı	1	I	ı	1		1	1 7.8	t c	149		ı	ı	ı	ı	I	ı	ı	ı	00	ο Φ
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Hunting	Male	ı	l	11	Н	00) (M	0	۱ ۱	ı	124	- 1 - 1	149		ı	ı	ı	ı	I	1	ı	1	00	0 00
ary	Total	o		23	20	1.5	0	10	000	21	202] [305		ı	1	1	1	1	-	I ==	13	i co	20
Wages and Salary	Female	0	1	ı	-	1	H	\vdash	2	10	139	1 1	156		ı	Н	1	-1	1	1		9	· m	12
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	-				ç	ЭΛ	ŢΞ	ьИ				_			_	Э.	۸Ţ	95	N-	uo	N			

DIAND Mackenzpe Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. BY

LOWER MACKENZIE REGION
TUKTOYAKTUK

No. of Weeks			wages alla satat	0								1
1-3	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
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0T-7	15	∞	23	m	ı	m	ı	ı	ı	2	I	7
1-17	25	9	31	5	ı	2	t	1	I	9 1	I	1 0
8-24	19	ı	19	9	П	7	1	1	ı	<u> </u>	I	
5-31	12	4	16	I	I	ŀ	ı	1	L	/ T	I	10
32-38	9	П	7	ı	1	ı	 1	L	⊣ ,	19	1 (19
19-45	1	Н	П	1	1	ı	ı	П	1	13 ,	7 (CT o
16-52	17	18	35	m	1	3	H	ı		9	Υ) (, ,
None	43	78	121	125	117	242	140	117	257	72	113	185
Total	142	118	260	142	118	260	142	118	260	142	118	760
2												
4-10												
11-17				-	Transport to the transport	+00	11271					
18-24				11	וד סד ווומ רדס		1					
5-31												
2-38												
9-45												
16-52												
None												
Total												

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. ETHNIC ORIGIN AND SEX BY

TOTAL CENTRAL MACKENZIE REGION

			_				_	_					T					_					
ork	Total		1	11	16	20	20	31	22	19	334	473		ı	-	1 1	ı	ı	ł	ł	I	121	122
Without Work	Female		ı	2	l 	l m	\vdash	I —	2	1 9	210	226		ı	ı	ı	1	ı	1	ı	ı	26	56
	Male		ı	6	15	17	19	30	20	13	124	247		ı	_	1 1	ı	ı	ı	1	ı	7.7	99
ment	Total		Н	7	. 7	(1)		1	ı	1	459	473		1	_		ł	ı	1	ı	1	121	122
Self-Employment	Female		\vdash	n	4	3	П	ı	ı	ı	214	226		ı	ı	ı	ı	ı	ı	ł	ı	26	56
Se	Male		1	\vdash	-	ı	ı	1	ı	1	4	247		ı	-	1	1	ı	ı	1	1	65	99
Fishing	Total		ŧ	15	50	24	9	3	-	1	374	473		1	1	ı	ı	-	ı	ı	ı	121	122
Hunting Trapping Fishing	Female		1	1	Н	ı	ı	1	t	ı	2	226		1	1	ŀ	ŀ	ı	ı	ı	ı	56	56
Hunting	Male		ı	15	65	24	9	n	Н	1	149	247		1	1	ı	ı	Н	1	ı	1	65	99
	Total		13	54	24	18	10	5	6	42	298	473		ı	3	5	Н	7	Н	3	72	33	122
Wages and Salary	Female		ı	1.5	3	2	T	7	4	11	186	226		ı	n	3	ı	3	Н	Н	15	30	26
Wage	Male		13	39	21	16	6	П	5	31	112	247		ŀ	1	2	Н	Н	ı	2	57	3	99
	No. of Weeks	1	1-3	4-10	11-17	18-24	25-31	32-38	39-45	46-52	None	Total		1-3	4-10	11-17	18-24	25-31	32-38	39-45	46-52	None	Total
					-	9Λ	i i i	sN							9,	ΛŢ	36	И—,	uoj	V			

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENCAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

CENTRAL MACKENZIE REGION NORMAN WELLS

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rk	Total	1	l	I	1	1	I	I	ı	1	٦,	П		ı	Н	ı	I			l	ı	ı	59	09
Without Work	Female	1	1	ŀ	1	I	ı	1	ı	I	ŀ	ı		1	ı	ı	. !	I	I	I	l	1	28	28
M	Male		l	ţ	I	l	ı	l	I	I	-	\vdash		1			I	1	1	1	1	I	31	32
ment	Total		1	1	ı	ı	I	I	1	I	Π			1	_	ı	1	I	ţ	ţ	ı	1	59	09
Self-Employment	Female		1	1	I.	1	1	ŀ	1	ł	ı	ı		ı	1		1	I	ı	I	ţ	1	28	28
Sej	Male		I	I	I	ī	ı	1	1	1	1	Н		1	f	4	1	l	1	I	1	1	31	32
Fishing	Total		F	1	1	1	I	1	1	ı	1	1		1		l	l	ī	1	ı	ı	1	09	09
rapping	Female		1	1	I	1	1	1	f	ł	ı	1			ŧ	ı	ı	1	ı	ı	ı	ı	000	28
Hunting Trapping Fishing	Male		I	l	1	ı	ı	1	1	1	Н				I	ı	1	ı	l	ŧ	1	1	32	32
	tal		1	1	ı	ł	1	ı	1		ı	П			١٩	7	m	1	Η	I	٦	36	17	09
Wages and Salary	Female		1	ı	1	ı	1	ı	ł	1	ı	I			1 0	7	2	ı	П	1	1	9	17	28
Wages	Male		ı	ì	ı	ı	1	ı	1	_	1	Н			1	i	П	1	1	1	7	30)	32
	No. of Weeks		1-3	4-10	11-17	18-24	25-31	32-38	39-45	46-52	None	Total		1	1-3	4-10	11-17	18-24	25-31	32-38	39-45	CR - 37	40-04 Mono	Total
		+	_	_	-	λG	TI	вN					+	-		ə <i>1</i>	T	lat	1-1	10]	V			

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

CENTRAL MACKENZIE REGION

COLVILLE LAKE

ork	Total	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Without Work	Female	112 113 113 113 113 113 113 113 113 113
45	Male	71 2 2 2 2 2 2 1 1 1
yment	Total	39 40
Self-Employment	Female	118 119
Se	Male	21 21 21 21 21
Fishing	Total	1 3 4 4 1 1 31 40 0t avail
Trapping	Female	1
Hunting Trapping Fishing	Male	1 3 4 4 1 1 2 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1
	Total	0 10 2 1 1 1 1 40
Wages and Salary	Female	170 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Wage	Male	272 1 1 1 1 1 8 8 9
	No. of Weeks	1-3 4-10 11-17 18-24 25-31 39-45 46-52 None 1-3 4-10 11-17 18-24 25-31 39-45 46-52 None Total
		Non-Native Native

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I. BY

CENTRAL MACKENZIE REGION FORT FRANKLIN

r	al		
Jork	Total	172	
Without Work	Female	11	
	Male	- 4 - 4 - 6 - 13 - 2 - 47 90 - 15 - 15	3
ment	Total	11 11 168 173 173 28 28	07
Self-Employment	Female	13 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CT
Se	Male	111111111111111111111111111111111111111	G
Fishing	Total	26 13 2 13 2 3 3 17 17 17 17 17 17 17 17 17 17 17 17 17	87
	Female	133 88 83 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	13
Hunting Trapping	Male	1 25 13 2 13 3 45 90 1 1	15
lary	Total	28 66 66 66 100 173 173 174 14	28
Wages and Salary	Female	7 3 3 3 3 4 4 3 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	13
Wage	Male	19 19 10 10 11 11 11 11 11	15
	No. of Weeks	1126933511	Total
		Non-Native Native	

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

CENTRAL MACKENZIE REGION

FORT GOOD HOPE

te 112450112451111114	
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	14
Female T Female T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7
Male Male 10 2 3 3 3 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2	7
Total Total 144 144 144 144 144 144	14
Self-Employment Female Tot 70 14, 70 14, 70 14, 71, 71,	7
Male Nale 74 74 74 74 74 74 74 74 74 74 74 74 74	7
Fishing Total Total 127 144	14
Female 70 70 70 70 70 70 70	7
Hunting Trapping Fishing Male Female Total 8	7
tal 110 100 111 111 111 111 111 111 111 11	14
Wages and Salary 11e Female To 2 - - 9 1 - 6 1 - 6 1 - 8 3 3 99 61 1 4 70 1 - - -	7
Magee Mage 2 2 2 39 39 39 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7
1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10 11-17 18-24 25-31 39-45 46-52	Total
Z	

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

CENTRAL MACKENZIE REGION FORT NORMAN

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ork	Total	1	5	9) LI	0 (n	2	00	ľ	ו ר	0	115		ı	1			ı		ŧ	ŝ	1	20	20	
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121	Male	ł	4	7	0 <	4	m	5	7	. ~	7 !	28	61		ı	ı		ł	ı	ı	1	1	ı	12	12	77
ment	Total	1	സ	C	7 (7	П	ı	ı		ı	107	115		1	1		1	t	1	ł	ł	ł	20	20	0.7
Self-Employment	Female	1	m	· c	7	2	1	1	1		ı	94	54		ı	١		1	1	I	ı	1	ı	00	O	0
Se	Male	1	ı		I	i	ı	1	1	l	I	61	61		ı	١		1	1	1	ı	ı	ı	12	1 6	77
Fishing	Total	ı	ſ	, ,	16	4	2	1		I	ı	88	115		ı	1	l	L	t	ı	1	ł	1	20	0 0	07
Hunting Trapping Fishing	Female	1	1		1	1	ı	ł		ı	1	54	54		1		I	ł	ı	1	1	1	1	œ) c	×
Hunting	Male	1	ľ	,	16	4	2	. 1		ı	ı	34	61		1		1	i	ı	ı	1	ı	1	1.0	7 7	1.2
	Total	1	Ľ)	9	2	-	10	1 .	0	14	77	115		1	٢	-	Н	٦	1	ł	ı	13	7	† (20
s and Salary	Female	ı	-	-1	ı	1	ı	-	4 =	-1	4	47	54		1	r	-1	ı	1	1	l	1	c) <	† (00
Wages	Male	ı	~	t	9	2	,	ł -	٦,	4	10	30	61		1		ı	Н	П	1,	1	1	10	2	1	12
	No. of Weeks	1-3	0 -	0T-4	11-17	18-74	25-31	30 00	05-20	39-45	46-52	None	Total		1 3	C -	4-10	11-17	18-24	25-31	32-38	39-45	(Z - Z)	40-04	None	Total
				-			ЭΛ	ÌΊ	9	N				1				9/	Ţ	Na	1-I	10	N			

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, N.W.T. BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS,

TOTAL UPPER MACKENZIE REGION

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rk	Total		u] [19	29	20	27	17	57	606	870		2	1 2	10	11	17	•	7	1	677	725
Without Work	Female		7	·	l m)	10	1 -	- 1	o	367	388		-	1 00	> <	† <	t	l 0	n	I	758	356
W	Male		_	10	16	28	23	20	12	27	329	482		-	וני) נר) 1		- 9	0	1	338	369
lent	Total		1	m	1	2	1	2	1	١٣	859	870		ı) (-	4 (ע) (1	7/1	473	725
Self-Employment	Female		1	-	1	ı	ŧ	ı	ı	_	00	388		ı	-	1	ı	-	H [ı	c	LC	356
S	Male		1	2	1	2	ı	2		2		482		1	2	-	1 1	7	10	1 1	30)	369
Fishing	Total			00	4	21	00	2		83	732	870		1	1	ı	ı	I	ı	ı	9	-	725
Trapping	Female		1	П	ı	ı	Н	ı	1	1	386	388		1	ı	ı	ţ	ı	ı	ı	ı	356	356
Hunting	Male		-	7	4	21	7	2	11	83	346	482		ı	1	ı	ı	1	1	1	9	363	369
lary	Total		26	93	42	21	10	13	12	96	557	870		9	31	32	37	17	19	15	329	239	725
Wages and Salary	Female	C		21	9	9	1	2	7	27	319	388		9	16	17	19	11	11	6	108	159	356
Wage	Male	C	23	72	36	15	10	11	_∞	69	238	482		1	15	15	18	9	∞	9	221	80	369
	No. of Weeks	C	1-3	4-10	11-17	18-24	25-31	32–38	39-45	46-52	None	Total		1-3	4-10	11-17	18-24	25-31	32-38	39-45	46-52	None	Total
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DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I.

UPPER MACKENZIE REGION

FORT SIMPSON

						-1-						 						_			
rk	Total	m <	† (r) ((2	2 (2	15	171	209		-	-	-	1	ŧ	1	ı	79	99	8
Without Work	Female	ς, _Ε		۱ ۱	1 1	1	1	0	60	00		1 -	-	l I	1	1	ı	ı	37) (r	
3	Male	1 0	n c	7 0	n 4		1 0	1 2	70	110	077	í	I	۱ -	-l i		ı		30	000	TC
rment	Total	ŧ	i	I	l	! !			1 000	200	607	•	I	1	l -	۱ ۱		. !	l n	00	90
Self-Employment	Female	ı	ŀ	I	1	Í	I	ł	1 0	66	88	ı	ı	1	1	I	1	I		3.5	35
S	Male	1	I	1	ı	ı	I	1	1 (110	011	1	ŀ	ı	1 -	-	I	I	1 (30	31
Fishing	Total	—		-	1 -	_	1	1 (2	203	209	I	1	ł	ı	l	l	1	i j	99	99
Hunting Trapping Fishing	Female	1	1	1	1	-	t	ı	ı	86	66	1	ı	ı	ī	1	ŀ	ı	1	35	35
Hunting	Male		Н	Н	ı	ı	I	1	2	105	110	1	1	1	1	ı	1	1	ı	31	31
lary	Total	00	13	5	2	_	C)	7	26	144	209	ı	5	\vdash	1		2	1	37	19	99
Wages and Salary	Female		5	Н	2	t	2	П	7	80	66	1	n	Н	1	Н	Н	1	15	14	35
Wage	Male		∞	7	3	-	1	3	19	79	110	ı	2	1	1	1	Н	Н	22	7.	31
	No. of Weeks	1-3	4-10	11-17		25-31			46-52	None	Total		7-10	11-17						None	Total
					5	ŢΛ¢	35	N						91	1-1	BN	-u	οN			

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION

FORT LIARD

															_		_	_				
ork	Total	1	\vdash	ŧ	1	1			1	128	131		I	ı	ı	ı	ı	ı	ı	1	6	0
Without Work	Female	1	1	1	1	I	ı	I	1	50	50		ı	ı	1	1	ı	ı	ı	1	7	4
M	Male	1	Н	ı	ı	1	-	Н	1	78	81		ł	ŧ	1	ı	ł	f	1	1	5	2
nent	Total	I		ı	1	400	ı	1	2	128	131		I	ı	ı	1	ı	ı	ě	1	6	6
Self-Employment	Female	1	1	1	ı	1	ı	ı	-	48	50		ŧ	1	1	1	ı	I	ı	i	4	4
Sel	Male	ŧ	1	t	ı	1	ı	1		80	81		ı	1	ı	ı	1	ı	ı	1	2	2
ishing	Tota1	1	1	2	2	Н	1	7	52	70	131		1	1	ı	1	ı	i	1	ı	6	6
Hunting Trapping Fishing	Female	ı	ı	1	1	1	ı	ı	1	50	50		ł	ı	1	ı	ı	8	1	1	4	4
unting T	Male	***************************************	1	2	2	1	1	4	52	20	81		ı	ı	1	1	1	1	1	1	5	5
	Total	1	24	5	Н	ı	2	ı	8	06	131		l	1	ı	1	1	_	1	5	3	6
and Salary	Female	ı	ı	ı	ı	ı	ı	ı	2	48	50		1	ı	ı	1	ı	1	ı		2	7
Wages	Male	-	24	5	1	ı	2	ı	9	42	81		l	ı	1	ł	ı	ţ	1	4	Н	5
	Weeks																					
	No. of	1-3	4-10				32-38		46-52	None	Total	C	L .					32-38		46-52	None	Total
					θV	ţţ	BN							Э.	νŢ	16	N-	-uc	N			

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I.

UPPER MACKENZIE REGION FORT PROVIDENCE

	Male remare incar	12
		12 9 - 9 16 2 4 4 4 2 2 2 100 53 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 7 5 7 7 7 5 7
ses and Sala	Male Female	3 1 11 1 6 3 3 2 2 1 1 1 11 3 38 62 75 71
	No. of Weeks	1-3 4-10 11-17 11-17 11-17 11-17 None None 1-3 4-10 1-3 4-10 1-3 4-10 1-17 18-24 25-31 39-45 46-52 None None

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION FORT WRIGLEY

			_	_	_				_				_										
-	Total		ı	1	2	7	7		ı	12	09	85		ı	ı	ŧ	ı	ı	ı	ı	1	6	6
Without Work	Female		ı	ı	1	\vdash		-	ĺ	\leftarrow	33	37		ı	ı	ı	ı	ı	ı	ı	ı	4	4
Wit	Male		ł	1	2	7	m	- 1	Н	11	27	48		I	1	ı	ı	1	ŧ	ı	1	5	2
nt	Total		ı	ł	1	1	ı	ı	1	ı	85	85		1	ı	ı	ı	1	ı	1	1	6	6
Self-Employment	Female		ı	1	1	1	1	ı	1	1	37	37		ı	1	ı	ı	1	1	ı	1	7	4
Self-	Male		ı	I	1	1	ı	ı	1	ı	48	48		I	1	ı	ı	1	ı	1	i	2	7.
'ishing	Total		ı	m	ı	2	1	1	1	1	80	85		ı	1	ı	1	1	ł	1	ı	6	6
rapping	Female		ı	Н	ı	ı	1	1	ı	1	36	37		1	I	1	ı	1	1	1	ı	4	4
Hunting Trapping Fishing	Male		t	2	ı	2	1	ŀ	ı	ı	77	48		ı	1	1	ı	1	1	1	1	5	5
	tal	(7.0	7	2	2	П	ı	П	2	09	85		1	ł	ı	ı	ŧ	ı	П	9	2	6
and Salary	Fema	Ţ	-1	2	ı	1	1	1	ı	ı	33	37		ı	1	ı	1	1	ł	۲	П	2	4
Wages	Male		ע	5	2	Н	7	1	Н	2	27	48		ı	1	1	1	ı	1	1	5	1	2
	No. of Weeks	1	1-3	4-10	11-17	18-24	25-31	32-38	39-45	46-52	None	Total		1-3	4-10	11-17	18-24	25-31	32-38	39-45	46-52	None	Total
						91	\Ţ:	lat	V						ć	ĐΛ.	ĮΩ	s M.	-u	ЭN			

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION JEAN MARIE RIVER

	1		
Total		28 28 28 28 28 28 28 28 28 28 28 28 28 2	
Without Work Female		13 13 13 13 13 13 13 13 13 13 13 13 13 1	
Male		133	
Total		788 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Self-Employment		133	
Self- Male		15	settlement
Fishing Total		23 23 28	es in set
rapping		133 133	No non-natives in
Hunting Trapping Fishing Male Female Total	341	11011115	Non
+ -	70707	11 11 128	
s and Salary	I emare	112 113	
Wages	Мате	18 1 1 1 1 1 1 1 2 2 1	
	No. of weeks	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total	1-3 4-10 11-17 18-24 25-31 32-48 39-45 46-52 None Total
	Z	Sylive HHVWW4XH	Non-Native

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION

NAHANNI BUTTE

		Wage	Wages and Sal	Salary	Hunting Trapping	Trapping	Fishing	Self	Self-Employment	ent	Wi	Without Work	치
	No. of Weeks	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	1-3	ı	1	ı	ı	ı	ı	1	1	ı	ı	1	ı
	4-10	m	1	3	1	1	ı	1	1		2	ı	2
	11-17	2	ı	5	ı	ı	ı	ł	ŀ	1	ı	ı	1
	18-24	I	1	1	1	ı	Н	1	ı	ı		ı	
	25-31	ı	1	1	ŀ	ı	1	ı	ı	ı	ı	ı	ŀ
76	32-38	1	ı	1	Н	1	1	2	ı	2	l	ı	ı
	39-45	F	1	1	3	ı	3	-	ŧ	-	ı	1	ı
	46-52	1	1	1	9	1	9	1	1	ı	1	ł	ı
	None	∞	10	18	5	10	1.5	13	10	2	13	10	2
	Total	16	10	26	16	10	26	16	10	26	16	10	26
Non-Native	1-3 4-10 11-17 18-24 25-31 32-38 38-45 46-52 None Total				Infor	Information not	t available.	le.					

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I.

UPPER MACKENZIE REGION TROUT LAKE

											1	P 5	
		Wage	Wages and Salary	lary	Hunting	Hunting Trapping Fishing	Fishing	Self-	Self-Employment	ent	MI	Without Work	시
	No. of Weeks	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	1-3	ı	ı	ı	ı	ı	ı	1	ı	ı	I	ı	ı
	1-3 /-10	ı	ı	ì	1	ı	ı	ı	1	1	1	ı	1
	T T T			ı	ı	1	ı	1	ł	ı	1	ı	ŧ
	11-1/	I	I	ı					ı	ı	ı	í	ı
	18-24	1	ı	I	ı	ı	ı	1	I			1	ı
ÐΛ		ı	ı	ı	ı	ı	1	I	ı	ı	I	I	
ŢŢ		1	1	1	l	1	ı	1	1	1	ı	ı	ı
B	1000 1000 1000	ı	I	ı	ı	1	ŀ	ı	ı	1	ı	i	1
N		l			7.0		10	1	1	1	1	7	2
	46-52	1	1	ı	OT.	1	70	1	7		1.0	C	2.1
	None	12	11	23	2	11	13	12	11	23	77	ו ע	77
	Total	12	11	23	12	11	23	12	11	23	12	TT	73
	1-3												
	T T												
ć													
<i>Α</i>	11-17						,						
i1	1 18-24				No no	No non-natives	in	settlement.					
ΕV.	25-31												
-u	32-38												
.UN	39-45												
l													
	None												
	Totol												
	local												

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

APPENDIX 7 (cont'd)

POPULATION 14 YEARS OF AGE AND OVER ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION

HAY RIVER

rk Total	2 2 7 7 8 8 11 11 163 163 222	12 12 9 10 7 7 9 9 - 591 640
Without Work Female	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Wi Male	1 2 6 8 8 11 6 70 125	1 5 5 7 7 828 328
ent Total	22 219 222	1 1 1 4 4 4 7 1 589 640
Self-Employment le Female T	1 1 1 1 1 1 6 6 7 6	1 1 1 1 1 1 307 312
Self	2 2 1 122 125	282 328 328 328
Fishing Total	1 1 1 1 10 204 222	640
Hunting Trapping Fishing Male Female Total	111111116	- - - - - - - - - - - - - - - - - - -
Hunting Male	44 1 2 2 1 10 107 125	328
Salary e Total	3 25 16 10 6 7 7 45 105	6 26 31 37 16 16 13 281 214 640
and Tema1	12 2 3 3 15 63 97	6 13 16 19 10 9 8 91 140 312
Wages Male I	3 113 14 7 6 7 7 3 30 42 125	- 13 15 18 6 7 7 190 74 328
of Weeks		
No. of	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total
	SvitsM	Non-Native

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

SIZE OF NATIVE AND NON-NATIVE LABOUR FORCE IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

		Total	1	r)	00	20	6	15	7	11	۰ (ب	4	m	1	95	ı	ł	9	ט יט	2	H	2	m	1 .	Н	ı	*	20	115
	FT. McPHERSON	Non-Native	1	í	m	2	ſ			ł	ı	1	1	ı	00	ı	ł	-	H (17)) 1	1	2	- -!	ı	1	1	1	7	15
	[-	Native	ſ	2	15	18	6	14	9		m ·	7	2	1	87	ı	ı	ľ	7 6	1 2		1	2	I		ł	0.00	13	100
		Total	1	∞	13	16	17	11	6	7	4	ന	2	7	26	ı	4	100	γ α	9	m	4	Н	2	1	j		45	142
ie Region	AKLAVIK	Non-Native	1	ı	2	5	5	1	П		2			2	23	1		l - -	-1 V) 	1	1	1	1	8	1		7	30
Lower Mackenzie Region		Native	î	∞	11	11	12	11	∞	9	2	2	Н	2	74	ı	7	0 -	77) ור	, m	4		ιĊ	1	ì	1	38	112
Low		Total	ı	21	88	57	37	77	31	20	14	00	œ	7	335	-	4 4	0 27	40	0 6	16	13	00	7	6	4	2	136	471
	INUVIK	Non-Native	ı	9	55	07	23	27	21	10	_∞	7	9	7	210	-	-l c	7 -	31	1.2	12	0	œ	9	9	4	1	66	309
		Native	ı	15	33	17	14	17	10	10	9	Н	2	1	125	ı	l c	س ت	L5 ,	4 c	1 7	. 4	į	Н	ന	1	1	37	162
		Age Group	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	49-09	65+	TOTAL	· ·	† † † † † † † † † † † † † † † † † † †	15-19	20-24	30-34	35-39	40-44	45-49	50-54	55-59	79-09	65+	TOTAL	GRAND TOTAL

WALE

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 13. Source:

EEMALE

SIZE OF NATIVE AND NON-NATIVE LABOUR FORCE IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

Lower Mackenzie Region

NOIS	Total	1	48	133	113		75	60	51	27	26	14	15	643)	Н	17	67	32	17	23	30	18	12	12	2	2	227	870
LOWER MACKENZIE REGION	Non-Native	ı	9	60	27	28	0 00	23	11	10	00	00	1.2	241		П	2	33	20	00	12	11	6	9	9	4	· ⊢	113	354
LOWER	Native	ı	42	73	99	7.0	27	37	40	17	18	9	· m	402		1	15	34	12	6	11	6	6	7	9		p=	114	516
	Total	1	10	13	17	6	י ור	11	12	9	00	t	1	91		1	5	2	က	ŧ	2	Н	9	1	2	Н	8	23	114
TUKTOYAKTUK	Non-Native	ı	ı	1	ı	ŧ	ı	ı	N/Av	1	ī	ı		N/Av		S S	1	i	ı	1	ı	N/Av	ı	1	ı	ı	1	N/Av	N/Av
	Native	ı	10	13	17	6	5		12	9	∞	ŀ	1	91		1	5	2	m	ŧ	2		9	П	2	Н	1	23	114
~!	Total	1	7	H	3	6	1	2	Н	ı	m	П	П	25		1	H		ı		H	ı	ı	40	1	1	1	3	28
ARCTIC RED RIVER	Non-Native	ı	ı	ı	1	ŧ	ı	ı	N/Av	ı	ı	ı	1	N/Av		ı	1	ı	ı	ı	8	N/Av	ı	ı	ſ	ı	1	N/Av	N/Av
.,	Native	ı	4	1	m	6	ı	2	Η	ı	3		1	25		1	Н	⊣	1	1		ı	1	1	ı	1	1	er .	28
	Age Group	+T_0	15-19	20-24	25-29	30-34	35-39	77-07	45-49	50-54	55-59	79-09	£59	TOTAL		0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	9-09	+ 59	TOTAL	GRAND TOTAL

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 13. Source:

SIZE OF NATIVE AND NON-NATIVE LABOUR FORCE IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

	,	Total	111 111 6 6 4 4 7	72	113 113 85
	FT. FRANKLIN	Non-Native	10000011011	14	116 2 1 1 1 1 1 1 1 2 2 3 1 1 1
		Native	1 4 2 0 0 0 0 0 4 4 8 8	58	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		Total	1 1 4 2 8 8 1 1 1 1 1 1 1	15	11 1 2 7 1 2 2 7 1
e Region	COLVILLE LAKE	Non-Native		1 1	
Central Mackenzie Region	99	Native	114000111111	15	11. 2 2 1
Cent		Total	1 1 2 3 3 2 5 6 6 1 1 2	31	37 6
	NORMAN WELLS	Non-Native	1 1 2 2 2 2 2 2 1 1 2 2 2 2 2 2 2 2 2 2	31	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		Native	N/Av	N/Av	N/Av N/Av N/Av
		Age Group	0-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 50-64	65+ TOTAL	0-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65+ TOTAL GRAND TOTAL

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 13.

1 - 125

SIZE OF NATIVE AND NON-NATIVE LABOUR FORCE IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

Central Mackenzie Region

NOIS	Total		1	12	77	100	20	17	38	1.7	13	10	10	7 1	15	1	219		1 (00 (12	x	9		7	Н	2	2	ı	í	44	263
CENTRAL MACKENZIE REGION	Non-Native		ı	7	13	1.5	7.7	٥	œ	5	9	-	í <	r c	n		62		ı	1 1		7 ,	1	i «	، رد	-1		ı		1	17	79
CENTRAI	Native	1	1	∞	31	α α	F C	77	30	12	7	6	00	10	77	-	157		l c	10 L	0 ~	4 г	۰ ۱	٦,	-1	L	-	2	1	1	27	184
	Total	ı	1 (2	12	7		~ 0	∞	5	2	— i	7	ی .) F	7	55	I	} -	⊣ ⊢	⊣ c	7 (n	1 -	7	1, 0	7 -		1	1	11	99
FORT NORMAN	Non-Native	ı	*	→	2	2	-	-l +	٦,		П	1		-	1 1		11	ı)	l -	7	I	l -	-	l -	-1	ı	1	•	m	14
Ħ	Native	ı	۴	7	10	5	9	7 0		4	1		3	7.)	1	77	ı	-	1-	- t	4 6	n .	i i		l F	ન ન		t		00	52
	Total	ł	0	O 1	_	4	00) [7.7	ν,	Π	5	—	m	1		97	ı	cr) L	000	1 1	-	- H	1		ı	I	i	1	12	58
FORT GOOD HOPE	Non-Native	1	ı) (7	2	-	1		ı	1		1	ı	ı		9	1	1	c	1	ı	ı	1	. 1	ı	1	ı	ı	1	က	0
	Native	1	c) L	0	2	7	11	i (*	٦ ٣	٠ ٠	7		m	1		07	1	3	2	2	1	-	-	ı	1	1		ł	1	6	67
	Age Group	0-14	15-19	20-27	42-02	25-29	30-34	35-39	77-07	07 47	71 CH	20-24	55-59	79-09	65+		TOTAL	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-67	4000	+59	TOTAL	GRAND TOTAL

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 13.

APPENDIX 8 (con'd)

SIZE OF NATIVE AND NON-NATIVE LABOUR FORCE IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

	E- 0 1	1000	111 7 66 7 7 11 11 11 11 11 12 11 12 13 14 14 17 17 17 17 17 17 17 17 17 17 17 17 17
	FT. PROVIDENCE	Non-Native	N/Av N/Av N/Av N/Av
	FI	Native	11 7 6 8 8 6 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	,	Total	10 10 110 110 99 11 12 11 11 11 11 11 11 11 11 11 11 11
e Region	FT. LIARD	Non-Native	1 1 1 1 1 1 1 1 1 4 1 1 1 1 1 1 1 1 1 1
Upper Mackenzie Region		Native	555 111 99 99 111 111 111 111 111 111 11
Uppe		Total	10 10 10 10 10 10 10 10 10 10 10 10 10 1
	FT. SIMPSON	Non-Native	24 11 12 13 39
		Native	48 11 11 11 11 11 11 12 12 13 13 13 14 14 15 16 17 17 17 17 17 17 17 17 17 17 17 17 17
		Age Group	0-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65+ TOTAL TOTAL GRAND TOTAL

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1 - 126

September 30, 1970, Table 13. DIAND Mackenzie Manpower Survey, October 1, 1969 -Source:

EEWALE

Region
Mackenzie
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		Age Group	0-14	15-19	-2	25-29	30-34	35-39		45-49	-05	55-59	79-09	65+	TOTAL	0-14	15-19	20-24	25-29	30-34	35-	40-04 141	45-	20-	55-59	0	65 +	TOTAL	GRAND TOTAL
											-																		

1 - 127

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 13.

APPENDIX 8 (cont'd)

SIZE OF NATIVE AND NON-NATIVE LABOUR FORCE IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

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r Mackenzie	HAY	Native	1	1.0	77	1/	13	10	17	, IC) V	0	0 6	o (m ·		95		ł	c	00	2 (1 1	ı	-	· (**) (7	l L	I	1	19
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1 - 128

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 13.

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502

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12

GRAND TOTAL

TOTAL

7 12

APPENDIX 8 (cont'd)

SIZE OF NATIVE AND NON-NATIVE LABOUR FORCE OF MACKENZIE IMPACT CORRIDOR AND REST OF N.W.T.

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	Native		4	346	581	7.60	400	403	426	319	261	204	145	80	28	3,268	7	100	100	597	09	20	37	33	29	25	20	00	7	572	3,840	
Rest of 1/N.W.T.	Native		n	189	326	272	7/7	233	229	169	146	108	63	36	14	1,790	Ľ	7	000	000	21	27	13	13	11	7	9	9	4	245	2,035	
trict	Total			164	410	373	000	505	285	261	172	155	110	53	29	2,322	C	2 08	100	161	94	58	81	69	99	77	29	10	6	737	3,059	h.
Rest of Mackenzie District	Non-Native		ı	93	306	298	251	107	200	189	132	110	72	38	25	1,720	ı	77	1 7 7.	104	6/	20	71	09	09	36	24	10	6	593	2,313	
Rest of	Native	,		71	104	75	000	0 0	6/	72	07	45	38	1.5	4	602	2	36	2 7) t	T 6	00	10	6	7	00	5	0	0	144	746	
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Total Impact Corridor	Non-Native		ı	19	110	121	50	77		50.	43	30	26		13	603	-	12	63	777	† 0	67	30	28	23	19	12	2	2	269	872	
Tot	Native		1 ;	98	151	121	110	110	10	0 1	(2)	15	77	32	10	876	1	34	53	20	1 5	15	14		14	10	6	2		183	1,059	1
	Age Group	0 1%	4T-0	15-19	20-24	25-29	30-34	35-39	77 07	44-04	40-47	50-54	55-59	60-64	65+	TOTAL	0-14	15-19	20-24	25-29	30-37	90-04	35-39	5,	45-49	50-54	55-59	79-09	65+	TOTAL	GRAND TOTAL	1/

Keewatin, Baffin and Arctic Coast Regions, Eskimos only, figures for non-natives not available.

Non-native for Mackenzie District only.

Source: DIAND Northern Territories Manpower Surveys, Table 13.

APPENDIX 9

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

LOWER MACKENZIE REGION

INUVIK

VI	Total	l	7	<u> </u>	. ~	t	77		_	10	118	162	Н	7	2	2		1	C	7 (Υ)	291	309
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ent	Total	ı	1		- ۱	T	1	I	1	7	156	162	ı	I	2	1	1	ı		1	14	293	309
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Wages	Male		10	1 (TO	9	10	2	5	62	27	125	1	0	1		- ⊢	٠ ١	9	m	178	18	210
	No. of Weeks	1-3	/-10	T T T	(1.1-1.7		© 25-31				None	Total	ر <u>ا</u>	7-10	_	V 10 2/					-	None	Total

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

Note:

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

LOWER MACKENZIE REGION

AKLAVIK

Wages and Sala 16 5 10 1 3 1 6 - 7 4 38 74 38 74 38 74 38 74 38 74 38 74 38	Y Hunting Trapping Fishing Self-Employment Without Work	otal Male Female Total Male Female Total Male Female Total	8	7 - 7 - 1	6 - 6 2 - 2 3 -	9 1 10	7 - 1 - 9		3 - 3 7 3	7 1 8 1 - 1 10	42 36 78 70 37 107 33 22	38 112 74 38 112 74 38 1				1 1	1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 2 - 2	19 7 26 20 7 27 22 7 2	
Mages and Salary Hunting Trapping Fishing of Weeks Male Female Total 3 16 2 8 - - 10 16 5 21 7 - 7 24 3 1 4 9 1 10 17 10 1 11 6 - - 6 24 3 1 4 9 1 10 31 6 - 6 - - - - 45 - 6 - - - - - - 45 - 6 - <td>Self-Emp</td> <td>[II.</td> <td></td> <td>1</td> <td>2</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>П</td> <td></td> <td></td> <td>1</td> <td>ı</td> <td>1</td> <td>1</td> <td>red</td> <td>1 1</td> <td>ı</td> <td>2</td> <td>20</td> <td>(</td>	Self-Emp	[II.		1	2	1	1	1	1	П			1	ı	1	1	red	1 1	ı	2	20	(
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Mages and Salary Hunting of Weeks Male Female Total Hunting 3 16 2 8 - 10 16 5 21 7 10 1 4 9 31 6 - 6 - 31 6 - 6 - 38 2 5 - - 45 - - - - 10 - - - - 11 19 36 7 24 38 112 74 24 - - - - 10 - - - - 10 - - - - 11 - - - - 10 - - - - 10 - - - - 11 - - - - 11 - - - -			1	1	1	Н	1	ı	ı		36	38	1	I	I	1	1	ł	ŧ	1	7	1
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		of	·-3	4-10	_	3-24	5-31	2-38	3-45	5-52	one	otal	-	1	1-17	8-24	5-31	2-38	9-45	5-52	one	T 0 + 0 T

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

APPENDIX 9 (cont'd)

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

LOWER MACKENZIE REGION

ARCTIC RED RIVER

		Wages	and	Salary	Hunting	Hunting Trapping Fishing	Fishing	Sel	Self-Employment	nent	3	Without Work	rk N
	No. of Weeks	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1													
	1-3	1	1	ı	-	I		1	ı	ı	1	I	1
	- 1	ı	1	1	7	1	7	1	1	1	7	I	7 '
	11-17	3	1	3	П	ı	٦	1	1	ı	9	ŧ	9
		3	ı	C)	2	1	2	1	1	1	<u>ش</u>	ı	m (
9Λ.	25-	4	ı	4	Н	1	Н	ı	1	1	2	t	7
ı Ç ı	32-	2	1	2	1	I	1	ı	1	1	ı	ı	1
SN	39-45	7	ı	7	1	1	ı	1	1	I	L	1 4	1 (
	46-52	7	Н	5	7	ı	7	1	t	1	Η	2	7
	None	2	2	7	12	3	15	25	3	28	6	-	10
	Total	25	m	28	25	3	28	25	3	28	25	C)	28
	1-3												
	4-10												
5	11-17												
νį	218-24				Ini	Information not	not avai	available.					
36	25-31												
N-	32-38												
uc	139-45												
N	46-52												
	None												
	Total												

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

APPENDIX 9 (cont'd)

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

LOWER MACKENZIE REGION

FORT MCPHERSON

Female Total Male Female Total		1		14 2		ı	1	1	0	3											
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Male	-	ł i	1	ı	1	1	1	1	98	87		I	ı	1	I	ı	1	1	1	00	00
Total		10	7	∞	3	2	ı	ı	9/	100		ı	1	ı	I	t	ı	t	1	15	15
Female		1	ı	1	1	ı	1	1	13	13		I	1	ı	ı	ı	ı	1	1	7	7
Male	1	10	Н	∞	m	2	ı	1	63	87		ı	ı	l	1	1	ı	ı	į	00	00
Total	7	21	17	15	∞	5	Н	21	∞	100		I		1	1	\leftarrow	ı	1	13	1	15
Female	1	1	ı	ı	1	Н		10	1	13		I		I	ı	I	I	t	9	4	7
Male	4	21	17	1.5	7	4	1	11	8	87		ı	I	ī	I	Н	I	ı	7	ı	∞
Weeks	1-3	4-10	11-17	18-24	25-31	32-38	39-45	46-52	None	Total) I '	7	11-17	18-24	25-31	32-38	39-45	46-52	None	Total
		-3	3	3 10 17	1-3 4-10 11-17 18-24	1-3 4-10 11-17 18-24 25-31	1-3 4-10 11-17 18-24 25-31 32-38	3 10 17 24 33 33 45	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10 11-17 18-24 25-31	1-3 4-10 11-17 18-24 25-31 39-45 46-52 None Total 1-3 4-10 11-17 18-24 25-31	1-3 4-10 11-17 18-24 25-31 39-45 46-52 None Total 1-3 4-10 11-17 18-24 25-31 32-38	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10 11-17 18-24 25-31 32-45	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10 11-17 18-24 25-31 32-38 39-45 Mone

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

APPENDIX 9 (cont'd)

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

LOWER MACKENZIE REGION TUKTOYAKTUK

Male Female Total	
2.	
Total 113 114	
Self-Employment e Female To	
Male 1 90 91 lable.	
Total Total 13 5 6 114 not avail	
Hunting Trapping Fishing S. Male Female Total Male 3 5 6 - 6 74 23 97 90 91 23 114 91 Information not available.	
Male Male 74 91 Info	
tal 3 8 8 25 11 6 6 6 114 114	
Female To	
Mages 3 8 2 2 3 16 17 1 6 6 9 1 9 1	
of Weeks 11 12 13 14 14 15 16 17 18 18 18 18 18 18 18 18 18	
No. of 1-3 1-3 4-10 11-17 18-24 45-52 18-24 45-52 11-17 18-24 45-52 11-17 18-24 18-2	

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

Note:

APPENDIX 9 (cont'd)

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, TOTAL LOWER MACKENZIE REGION

		_	_																							
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lent	Total		0	1 r	→ ,	m		ı	1	1	9	703	717	010		ı		1 (7	ł	-1	1	ı		4 6	354
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Fishing	Total			27	t / r	97	29	ω	7		32	400	516	9		t	ı			٠,	-	1	1		~	354
Trapping	Female		1	1		1	- 1	I	I	Ī	-1	112	114			1	ı	ı		l r	-	1	ı	l	112	113
Hunting	Male	Ť	-1	24	1 -	0 0	χ,	Λ·	† 1	ر ک	31	∞	402			I	t	ı	-	4	1	ł	I	n	237	241
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and	Female	c	7	2	7	- C	7 -	٦ ٣) (٦ ٢	9/	18	114			1		-1	_	f	-			103	4	113
Wages	Male	7 / [† ⊢	74	63	17	7 00	17) T	,	TTT	59	402			1	2	H	ļ	m	٧ (0 (Υ	199	26	241
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						Э	Λį	16	N									91	Z Ľ.	at	N-	-u(N			

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

CENTRAL MACKENZIE REGION NORMAN WELLS

rk	Total									1		1	i	1	ı	I	1	36	37
Without Work	Female									ı	i	1	l	ı	1	1	i	9	9
M	Male									ı		Í	1	1	1	1	1	30	31
ent	Total									ı		1	F	1	I	I	1	36	37
Self-Employment	Female									1	ı	1	1	1	ı	ı	1	9	9
Self	Male			ole						1	-	ı	1	ŧ	1	1	1	30	31
Tishing	Total			t availat						1	1	1	1	1	1	ł	1	37	37
rapping I	Female			Information not available						ı	1	1	1	1	I	1	ı	9	9
Hunting Trapping Fishing	Male			Inform						ı	1	ı	ı	ı	1	1	ı	33	31
	Total									t	1	1	1	ı	1	-	36) 1	37
and Salary	Female									1	ł	ı	ı	1	ı	1	9) 1	9
Wages	Male									1	. 1	1	ı	ı	ı	Н	30) I	31
	of Weeks		0	7	8	5	2		П		0 -	7	. 7		00	5	5.2	1	1
	No.	1-3	4-10	18-24	 [1] 32-38		46-52	None	Total	1 2	/1-1/		1 00	25-31	32-	39-		TO ROLL	Total

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

לה חוור מ) לרסוור מ)

CENTRAL MACKENZIE REGION

COLVILLE LAKE

No. of Weeks 1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10 11-18 18-24 25-31 32-38 39-45 46-52
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"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

CENTRAL MACKENZIE REGION

FORT FRANKLIN

		 	_		_			,												_		
ork	Total	ı	5	∞	α.	7 0	- (13	2	3	20	99	1	1	1	1	1	1	1	1	19	19
Without Work	Female	١		-	l -	٠,	-1	ı	ı	ı	7	∞	I	1	l	ı	1	ı	1	1	5	5
F.M.	Male	1	7	7		- (9	13	2	က	16	58	ì	1	ı	1	1	ı	1	1	14	14
ent	Total	ı	Н		ł	1	ı	1	I	1	79	99	t	I	1	1	1	l	1	1	19	19
Self-Employment	Female	1	ſ	1		1	1	ı	1	ı	00	∞	1	1	ı	1	ı	ı	1	ı	5	50
Self	Male	1	Н	_	4	1	ı	1	1	1	56	58	t	ı	ı	ı	1	1	ſ	ı	14	14
Fishing	Total	ı	Н	23	0 7 7	13	2	m	H	1	23	99	1	1	1	1	-	1	ı	ı	18	19
Trapping	Female	ı	t	_	7	1	1	ı	1	1	7	. ∞	ı	ı	1	1	ŀ	ŀ	ı	ı	r	2
Hunting	Male	1	_	20	77	13	2	n	Н	ı	16	28	ł	I	ı	ı	-	1	ı	ı	13	14
ary	Total	4	14	7	4	5	5	Н	m	16	14	99	ı		I	ı	0	1	2	14	-	19
s and Salary	Female	i	-	4	I	1	1	Н	2	7	- 1	∞		l (ŧ	1	-	1	Н	~~~) [5
Wages	Male	7	٠ ۲	۲,	7	5	5	1	_	12	17	58		l I				1 1	_	1 [-	14
	Weeks																					
	No. of	1-3	1 1	11 TO	4	18-24			39-45		40-04 Non-04	Total	,	1-3		1 1 0 7/			30-45		NOTO OR	Total
							OIL	1-1	BI	Į.					01		, - I,					

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

CENTRAL MACKENZIE REGION

FORT GOOD HOPE

rk	Total	ı	_	10	1 7	- r.]	10	1) [67	1	F		ı	ı	-1	ı		o	0
Without Work	Female	1	ı	ı	_	ł [г	_	H (**) M	6	1	ı	ı	ı	ł	I	ı		c	n m
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ient	Total	ı	ı	ı	1	1	ī	ı	1	67	67	ı	ı	ı	ı	ı	I	ł	ı	6	6
Self-Employment	Female	ı	ı	ı	ı	ı	ſ	1	ı	6	6	1	1	1	I	I	I	ı	ŀ	~	
Self	Male	ı	I	***	ı	ı	ı	ı	ı	40	07	1	1	ı	1	1	1	ı	ş	9	9
Hunting Trapping Fishing	Total	1	00	2) M		1	1	1	32	67	ı	1	ı	I	ı	1	ı	1	6	6
Trappin	Female	ı	ı	ı	40	ı	1	1	ı	6	6	ı	ı	ŧ	ı	ı	ı	1	1	m	n
Hunting	Male	ı	00	7	m		ı	1	1	23	040	1	ı	ı	ı	ı	ı	ı	ŧ	9	9
Salary	Total	2	6	10	7	2	П	1	ı	7	67	ı	1	1	1	ı	ı	ı	6	ı	6
and	Female	1	Н	П	1	1	\vdash	1	3	2	6	1	ı	1	ı	j	i	ł	m	ŧ	3
Wages	Male	2	8	6	9	2	ı	ł	∞	10	04	ı	ı	ı	ł	1	ı	ı	9	1	9
	of Weeks		0	7	-		8	2	2				0	7	7		22	5	2		1
	No. o	1-3	-1	11-17	-	H 25-31	32	39	46-52	None	Total	1-3	4-10	11-	18-	Z 25-31	32-	39-	9	None	Total

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

APPENDIX 9 (cont'd)

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

CENTRAL MACKENZIE REGION

FORT NORMAN

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ork	Total										1	-	α.)												, ,	
Without Work	Female		1	,	4	-	-1	ı	1 1		→ .	4	00		1	ı	ı	1	1	l	ı	ŧ	ł	c	∩ ⁽	
With																										
	Male		ı	c	2	0 -	4	2	5		4	13	77		i	1	•	1		l	l	I	ı	7	TT	11
ent	Total		1	1	ł 17	-1	I	-1	ı	ı	I	20	52	1	ı	ı	ı		t	1	1	ŧ	1	1 "	14	14
Self-Employment	Female		1		ŧ r	-	ı	1	ı	ı	ı	9	00		ı	1	1		1	ı	ı	ı		1 (3	က
Self	Male		1		ł	ı	ı	1	1	1	1	77	1,1,	r	ı	1		I	1	t	1	1		t	11	11
Fishing	Total		1	,	4	16	4	2	ı	ı	1	26	C T	75	ı	ı		I	F	ı	ı	ı		ı	14	14
Hunting Trapping Fishing	Female		ı		ŀ	ı	1	1	1	1	1	00) 0	0	1	ı		1	1	1	1	1	l	t	m	3
Hunting	Male		ı		4	16	4	2	1	ı	1	18) ·	77	i	i	l	I	1	1	1		I	1	11	11
lary	Total		1		7	5	7	-	7	4	14	· 00	0 0	25	1		ı	I	ı	ı	1		l ·	14	ı	14
es and Salary	(1)			ı	Н	ı	1	ı	1	1	4		7 (∞	1		ı	ı	1	ı	ı		ı	m	ı	3
Wages	Male			ı	r	ľ	7	t -	٠ -	1 7		7 -	91	77		I	l	ı	1	1	ı		1,	11		11
	of Weeks																									
	No. of		(1-3	4-10	11-17	18-27	17-0T	30-38	30-45	CH 27	40-72	None	Total	C	1-3	4-10	11-17	18-24	25-31	1 0	05-70	39-45	146-52		Total
-		+	_						ŢŢ.										91	ΛŢ	9 F	N.	-U	10]	N	

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

TOTAL CENTRAL MACKENZIE REGION

		_	_	_	_		_			,	_	_	_						_								
ork	Total			1 0	TO	16	10	10	170	10	7.7	19	7 7 8 7	184			1	-	1	i	1	1	1		1 0	10	6/
Without Work	Female			1 9	7	\vdash	cc)	٦ ٢-	⊣ (7	9	11	27		1	1	I	ı	ą	I	1	1	1	1 1	17	1/
	Male			ı o	x	15	16	0 00	0 0		70	13	37	157		١	-	-1	I	ł	ı	1	1	ı	- 12	T0	70
ent	Total		ı	۱ -	-1	2	1	-	1 1	1	I	1	180	184		ł	-	1	\$	I	I	ı	ı	ı	78	70	61
Self-Employment	Female		ı		ł	-1	ł	_	۱ ۱		I	i	25	27		ł		ı	i	I	ı	ı	ı	ı	17	17	
Sel	Male		1	-	٦ -	—	1	ı	1		I	ı	155	157		1	-	4	I	ı	ı	1	ı	1	61	63	70
Hunting Trapping Fishing	Total		ı	17.	† I	47	23	9	~) ,-	7	1	06	184		1	ı	ı	ì	l F	7	ı	ı	ı	78	79	
g Trappin	Female		ı	1	T	-	1	1	1	1		ı	26	27		ł	t	ı	ı	!	ı	1	1	1	17	17	
Huntin	Male		1	14	1	46	23	9	m	_	ł	ı	49	157		ı	1	1	ı	-	-1	ł	1	ı	61	62	
lary	Total		11	34	- (7.0	16	6	7	7	7.1	†	42	184		1	1	ı	1	0	1	į	~	73	Н	79	
Wages and Salary	Female		ı	m	-	٠, ١	-1	1	C	2	11	77	9	27		1	1	1	1	_	1 1	+ =	-	1.5	ł	17	
Wage	Male		11	31	10	Ly	15	6	Н	5	30		36	157		I	1	ı	J		ı	C	7	58	1	62	
	. of Weeks		-3	4-10	-17	77.	47-	25-31	-38	-45	-52	1	None	iotal	C	T-3	4-10	-17	-24	25-31	32-38	27	7	46-52	ne	Total	
	No.		-	7	-			15 25		39	.97		ON E	10	-	-	7			at 25					None	To	
		L					- L	-, 0	TA												T.K		1/				1

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. "Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

Source:

APPENDIX 9 (cont'd)

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

UPPER MACKENZIE REGION

FORT SIMPSON

~1	Total	11 11 12 22 29 29 115 115 116 117 117 118 118 118 118 118 118 118 118
Without Work	Female	11. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Wi	Male	1 1 1 1 1 2 2 2 4 8 4 8 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ent	Total	577
Self-Employment	Female	11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
Self	Ma1e	48 48 48 11 11 12 23
Hunting Trapping Fishing	Total	11 1 2 2 2 2 2 2 2 2 3 3 9 3 9 3 9 3 9
Trappin	Female	11.51.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
Hunting	Male	11 11 11 11 11 12 43 48 43 24 24 24
Salarv	Total	55 33 34 10 10 57 11 37 39 39
pue	ema1	11 12 15 11 12 15 15 15 15 15 15 15 15 15 15 15 15 15
Magoo	Male	44 11 13 13 13 13 14 13 14 15 17 17 17 17 17 17 17 17 17 17 17 17 17
	No. of Weeks	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total 1-3 4-10 11-17 18-24 25-31 39-45 46-52 None Total
		Non-Native Mative

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. "Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

Note:

Source:

IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED, ETHNIC ORIGIN AND SEX BY

UPPER MACKENZIE REGION

FORT LIARD

Work	111111111111111111111111111111111111111	111111111111111111111111111111111111111
Without Work Female To	וווווווו) !!!!!!!
Male	1411144170	3 1111111144
rent	2 2 2 1 1 1 1 1 1 2 1 2 1 2 1 2 1 2 1 2	1 1111111111111111111111111111111111111
Self-Employment e Female To	111111111111111111111111111111111111111	11111111
Sel	111111111	1111111144
Fishing Total	1 1 1 1 1 1 1 1 1	111111111111111111111111111111111111111
Hunting Trapping Fishing Male Female Total	11111111	11111111
Hunting	1 1 1 2 1 1 4 2 8 8	111111144
llary Total	23 55 1 2 8 8 71	וווווויי
Wages and Salary e Female Tot	1111111046	111111111
Wag Male	23 23 5 1 1 5 6 8 8	1111111414
Weeks		
No. of	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total
	SvijsN	Non-Native

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

UPPER MACKENZIE REGION

FORT PROVIDENCE

ment Without Work Total Male Female Total		
Self-Employment Male Female To	2	
	15 15 2 2 56	: available
Hunting Trapping Fishing Male Female Total	11111111	Information not
Hunting	15 15 15 2 2 4 49	Inform
alary Total	10 10 7 2 2 2 14 14 56	
ses and Salary Female Tot	111111111111	
Wages Male Fe	3 10 6 3 2 2 1 11 13 49	
No. of Weeks	1-3 4-10 11-17 18-24 25-31 39-45 46-52 None Total	1-3 4-10 11-17 18-24 18-24 32-33 39-45 None Total

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks. Note:

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14. Source:

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

TINDIA C ALUMNIA D

UPPER MACKENZIE REGION

FORT WRIGLEY

	Į,							_			-				T		-	-	_		-	_				
Jork	Total			ı	1	2	n	· ~)	l r	⊣ ;	12	~	27			l	1	1	ı	1	f		ŀ	7	
Without Work	Female			I	ı	1	1	ı		l	1 ,		_	7			ł	ſ	f	I	ı	ı	ı	ı	6	7 7
	Male			Î	1 -	2	m	m)	l -	٦.	TT	5	25		1	ı	I	I	í	ı	1	1	1	ľ	υLO
ment	Total		1	1	I	ł	1	1	1		ŧ	ı	27	27		ı		I	4	ŧ	t	1	1	1	7	7
Self-Employment	Female		ł	!	I	ı	1	1	ı		I	ı	2	2		ŧ	,	l	i	ı	i	I	ı	ł	2	2
Sel	Male		1		I	I	ı	ł	ı		ı	ı	25	25		ı	ł	!	1	ı	ŧ	ł	ı	ı	5	5
Fishing	Total		ı	0	7	1 -	2	1	ŀ	ſ	li	1 -	23	27		ı	8	ı	!	.	ı	ı	ı	ı	7	7
Hunting Trapping Fishing	Female		1	ı		i	1	1	1	ı	() 1	2	2		1	ı	ı	ŧ		!	I	ı	ı	2	2
Hunting	Male		1	2	1	I	7	ı	1	ı	ı	1	21	25		ı	1	ı	1	ı	ı		ı	1	2	2
alary	Total		6	7		٦ ٦	-	Н	ı	_	10	1 1	_	27		I	ı	ı	ı	ł	ı	-	ч ,	9	ı	7
Wages and Salary	Female		ł	1	ı		I	f	ı	ı	ı	c	7	7		1	1	ı	1	1	1	٦	-l -	-1	I	2
Wag	Male		6	4	0	1 -	٦ ،	H	ı	П	2	L	0	25		t	1	1	1	ı	1	ı	L	1	F	5
	of Weeks																									
	No. of	1	I-3	4-10	11-17	18-2/					46-52	Nono	MOIIE	Total	7	T-3	4-10	11-17	18-24	25-31	32-38		16-50	70-04	None	Total
							6	ЭΛ	ĹÌ	19	I							91	Ţ	Ial	I-I	OL	N			

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

APPENDIX 9 (cont'd)

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

UPPER MACKENZIE REGION JEAN MARIE RIVER

ork	Total	1101111100	
Without Work	Female	1 1 1 1 1 1 1 1 1	
M	Male	110111100	
ent	Total	111111000	
Self-Employment	Female	1 1 1 1 1 1 1 1 1	
Self	Male	11111100	men t
Fishing	Total	111114468	in settlement
Hunting Trapping Fishing	Female	1 1 1 1 1 1 1 1 1	No non-natives
Hunting	Male	111114468	No non-
lary	Total	121111110	
es and Salary		1 1 1 1 1 1 1 1 1 1	
Wages	Male	1011111100	
	of Weeks	3 10 17 24 31 38 45 45 6	3 10 17 24 31 33 45 45
	No.	1-3 4-10 11-17 18-24 25-31 32-38 39-45 46-52 None Total	1-3 4-10 11-17 18-24 25-31 32-38 39-45 None
		Native	Non-Native

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks. Note:

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

UPPER MACKENZIE REGION

NAHANNI BUTTE

		Wag	Wages and Salary	alary	Hunting	Hunting Trapping Fishing	Fishing	Sel	Self-Employment	lent	25	Without Work	rk
	No. of Weeks	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	1-3	ı	ŀ	1	1	1	ı	1	ı	1	1	ł	ı
	4-10	n	ł	m	1	1	ı	ŧ	ı	1	2	ı	2
	11-17	7	ı	5	1	1	ı	ı	ı	ı	1	ı	1
ÐΛ	18-24	ł	1	ı	Н	1	\vdash	1	ı	1		ı	
įΊ		ı	ı	1	1	ı	1	1	1	1	ı	ı	1
БИ	32-38	1	ı	ı	1	1	Н	2	1	2	1	ı	ı
	39-45	ı	1	1	n	ı	n		1	Н	1	ı	1
	46-52	1	ı	1	9	ı	9	ı	ł	ı	ı	1	ı
	None	9	1	9	ന	ı	3	11	1	11	11	ı	11
	Total	14	9	14	14	ı	14	14	1	14	14	ı	14
ÐΛ	1 7 7												
Ţ													
181	18-				Inform	ation not	Information not available	(1)					
//-	25												-
uo													
N													
	46-52												
	None												
	Total												

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

UPPER MACKENZIE REGION

TROUT LAKE

	Was	Wages and Salary	alary	Hunting	Hunting Trapping Fishing	Fishing	Sel	Selt-Employment	ient	>	WILHOUL WOLK	LK
No. of Weeks	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	1	ı	ı	ı	t	ı	1	ı	1	ı	1	l
	1	ı	1	ı	ŀ	1	ı	ı	1	1	ı	t
	1	ı	1	ı	ı	1	I	1	ı	1	ı	ı
	1	1	ı	1	1	1	ı	1	t	ı	ı	1
	ı	1	1	1	ı	1	1	ı	1	1	I	ı
	I	ı	ı	1	1	1	1	ı	1	i	ı	I
		!	ı	ı	ı	ł	1	1	1	1	1	ŧ
			ı	10	1	10	1	1	ł	1	2	2
	1 (, ,	12) I	0	2	10	2	12	10	ı	10
	0	1 C	12	C	10	12	10	2	12	10	2	12
				No nor	-natives	No non-natives in settlement	men t					

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks. Note:

LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

APPENDIX 9 (cont'd)

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

UPPER MACKENZIE REGION

HAY RIVER

		T	-	,		_					_				_					_		-			_		
ork	Total		*	-	.4	7	00	יט (77	9	17	57	114		-	- 1	11	6	7	7	. 0	^	I	1	344	388
Without Work	Female		٢	7	1	Н	1	ı	l	ı	1	2	15	19			l I	_	4	7	1	c)	ŧ	1	103	121
	Male			1 (7	9	00	ı v) [7.7	9	15	42	95		-	⊣ ~	7	2	m	7	9		ţ	I	241	267
ent	Total			1 0	7	1	1	ı	1	l	1	-	111	114			l _F	-1 1	-1	I	7	0	1	l 1	14	339	388
Self-Employment	Female			I	I	I	1	ı	1		I	ı	19	19		ł		ı	I	ı		ı		1 (~	117	121
Self	Male		ı	, c	7	ı	1	ı	l		1	-	92	95		I	-	- +	7	L	m	2	1 1	0 0	20	222	267
Fishing	Total		i	7	t	П	1	2	<u></u>	1	1 (10	96	114		ı		I	1	I	ŧ	1	1	9	0	382	388
Hunting Trapping Fishing	Female		ı	ı	l	1	1	1	ı	1	l	ı	19	19		ı	ı		I	I	ſ	1	1		1	121	121
Hunting	Male		1	7/	tr	-	ı	2	1	1	1 (TO	77	95		ı	800		1	I	1	ı	ı	9	7	797	267
Salary	Total		2	10	0 0	OT	7	9	7	ľ) "	40	22	114		Н	-	ی ا	7 .	† c	7	6	12	281	1 5	22	388
and	Female		ı	2	1	1	I	ı	ı	0	1 п	CT	ı	19		Н	ı	0	1 0	1 ~	†	4	7	91	1 (OT.	121
Wages	Male		2	00		10 10	_	9	7	3	30	000	22	92		1	П	7	12	1 1 rc	ا ر	2	5	190) \ \ \ \	400	797
	Weeks																										
	No. of		1-3	4-10	11-17	10 27	1 0 T	7 25-31	32-38	2 39-45	46-52	1000	None	Total		1-3	4-10		00	25-	1 0		2 39-45	46-52	None	DIION B	Iotal

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

Note:

APPENDIX 9 (cont'd)

BY ETHNIC ORIGIN AND SEX IN THE MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. LABOUR FORCE ENGAGED IN SPECIFIED ACTIVITIES BY NUMBER OF WEEKS ENGAGED,

TOTAL UPPER MACKENZIE REGION

	Was	Wages and Sa	Salary	Hunting	Hunting Trapping	Fishing	Self	Self-Employment	ent	→	Without Work	Ork
No. of Weeks	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
											т	٢
	19	2	21	-	ı		I	ı	1	L	-	⊣ (
F-0	1 10	0	60	7	1	7	7	1	2	∞	1	00
0T-4	000	7 1				~	0	1	2	14	2	16
11-17	31	-	75	C ;	ı		1			25	1	25
9 18-24	15	I	15	20	ı	20	t	l		040	-	70
·H 25-31	10	ı	10	7	1	_	E :	ı	1 (67	-1	1 0
37130	11	1	11	2	1	2	2	1	7	07	I	07
N 30-75	00	c	11	11	1	11	-	1	1	12	L	71
7.5 5.0	69	27	96	83	1	83	2	1	n	42	6	15
76-04	90	7	103	183	42	225	308	41	349	173	29	202
None	317	7	359	317	42	359	317	42	359	317	42	359
IOLAI	110	1										
										г		-
1-3	1	1	Н	ı	1	ı	ı	ī	1	Н •	l L	⊣
4-10	-	I	1	1	1	ı		ı	П	7		7 7
	7	2	9	ı	ł	ı		I	-	∽	4 ,	ז ע
12-2t	12	2	14	L	1	ı	1	1	j 1	m (7	\ 0
	5	4	6	1	1	ı	7	I	√ (χ (اد	
	5	4	6	ı	1	1	2	l	7	0	n	n 1
	9	00	14	1	1	1	ı	1	I :	1	1	
	221	108	329	9	1	9	38	m	14	l	1 1	1 0
40-04 None	777	10	35	294	139	433	254	135	389	273	121	394
Total	300	139	439	300	139	439	300	139	439	300	139	439
TOTAL		1)									1

"Labour Force" - those engaged in activity(ies) for not less than 46 weeks.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 14.

Source:

VS. WEEKS NATIVE MALE RESIDENTS 14 YEARS OF AGE AND OVER BY TOTAL WEEKS SPENT AT INCOME PROCUDING ACTIVITIES 1/

SPENT LOOKING FOR WORK, MACKENZIE IMPACT CORRIDOR, N.W.T.

Lower Mackenzie Region

Number of Weeks at Income Producing Activities

						1 -	- 15	1		
Total	Н	13	21	37	52	94	97	30	951	1,197
None	ı	ļ	ł	2	ı	Н	1	13	757	773
46 - 52	ı	2	1	1	ı	ŧ	I	ı	147	152
39 - 45	ı	5	7	ł	ı	I	ı	1	7	14
32 - 38	i	2	11	10	7	ſ	ı	1	7	26
25 - 31	I	ı	П	23	21	1	1	ł	ιC	50
18 - 24	ı	ı	1	Н	29	17	1	1	œ	55
11 - 17	ı	Н	7	Н	Н	27	28	ı	9	99
4 - 10	Т	ı	1	1	ı	7	1.7	11	18	48
1 - 3	ı	ŧ	ı	ı	ı	1	H	9	9	18
Weeks Without Work	.3	4-10	.17	.24	.31	.38	.45	.52	ie.	al
Weeks W	1-3	7	11-17	18-24	25-31	32-38	39-45	46-52	None	Tota1

 $\frac{1}{2}$ Wage employment, hunting-trapping, self-employment.

APPENDIX 10 (cont'd)

NATIVE MALE RESIDENTS 14 YEARS OF AGE AND OVER BY TOTAL WEEKS SPENT AT INCOME PRODUCING ACTIVITIES VS. WEEKS

SPENT LOOKING FOR WORK, MACKENZIE IMPACT CORRIDOR, N.W.I.

Central Mackenzie Region

Number of Weeks at Income Producing Activities

Total	ı	6	15	17	19	30	20	13	306	429
None	1	ı	ı	1	1	ı	1	ı	262	269
46 - 52	į	2	\$	1	1	ı	3	i	31	33
39 - 45	1	9	7	1	1	ı	ı	ı	ı	13
32 - 38	ı	1	œ	2	1	1	1	ı	1	13
25 - 31	1	H	ı	11	5	ı	ı	ŝ	ı	17
18 - 24	ı	1	ı	Н	13	11	1	í	Н	26
11 - 17	ı	ı	ı	t	Н	19	13	1	m	36
4 - 10	1	ı	ı	i	1	ı	7	m	œ	18
1 - 3	t	1	ı	1	ı	ı	ı	က	₩	7
Weeks Without Work	1-3	4-10	11-17	18-24	25-31	32-38	39-45	46–52	None	Total

Wage employment, hunting-trapping, self-employment. 1

VS. WEEKS NATIVE MALE RESIDENTS 14 YEARS OF AGE AND OVER BY TOTAL WEEKS SPENT AT INCOME PRODUCING ACTIVITIES 1/

AFFENDIX 10 (cont'd)

SPENT LOOKING FOR WORK, MACKENZIE IMPACT CORRIDOR, N.W.T.

Upper Mackenzie Region

Number of Weeks at Income Producing Activities

.1							15				
Total	1	10	16	28	23	20	12	43	682	835	
None	ı	-	I	1	ł	ı	1	16	525	543	
46 - 52	ı	2	I	ŧ	1	ŧ	ı	ß	138	143	
39 - 45	ı	2	2	ı	1	1	i	ı	H	œ	
32 - 38	ı	t	7	4	ı	1	ı	ı	ı	11	
25 - 31	ı	ı	1	20	r	1	ı	ı	1	23	
18 - 24	ı	ı	ı	ı	15	ω	I	ı	Н	24	
11 - 17	1	1	ı	1	m	12	2	1	7	27	
4 - 10	ī	Н	က	2	\leftarrow	ı	9	1.5	10	38	
1 - 3	1	Н	Н	ŧ	r-i	ı	М	12	2	18	
Weeks Without Work	1-3	4-10	11-17	18-24	25-31	32–38	39-45	46-52	None	Tota1	

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1/ Wage employment, hunting-trapping, self-employment.

APPENDIX 11

NATIVE AND NON-NATIVE LABOUR FORCE BY SOURCE OF INCOME AND INCOME CATEGORY

TOTAL MACKENZIE IMPACT CORRIDOR

		\$1-399	-007\$	-00Z\$	\$1,000-	\$2,000-	\$3,000- 3,999	\$4,000- 4,999	\$5,000- 5,999	\$6,000- 9,999	\$10,000 & over	Not Spec.	None	Total
No.	≥	r, ox	69	70	137	72	53	40	42	107	6	65		878
MALLVE		5 -	9	00	25	35	26	15	9	6	1	12	30	\vdash
	+ EH	69	75	48	162	107	79	55	48	116	6	77		1,061
Non Notito	×	1	-	~	6	6	6	14		220	199	53	77	604
	E P	l 1-	10	000	ر در	17	24	38		96	∞	24	21	269
sə S	ц [H		4 M	7 2	24	26	33	52	33	314	207	77	98	873
F 0	≽	00	70	43	146	81	62	54	52	0	208	118	263	1,482
TOCAT	1 1	12	00	10	40	52	50	53	29	103	00	36	51	45
	- E	70	78	53	186	133	112	107	81	3	216	154	314	\sim
1	>	1 2 1	2.0	21	19	9	m	m	- 1	2	ı	73	561	878
Nactve	E F	TOT		1	1	1	1	1	ı	1	1		181	
3u;	4 [-4	132	59	21	19	9	3	3	I	2	1	74	742	1,061
Mon Motor	×	-	-	ı	1	1	1	-	1	H	1	9	594	604
	E F	4	- 1	1	1	1	ı	1	_1	ļ	I	H	268	269
	4 E-	ı H	ı —	1	1	1	ı	-	1	-	1	7	862	873
() ()	×	139	60	21	19	9	c	7	ŀ	c	1	79	2	1,482
local	E F	132	20 1	T 1) I) 1	1	-	I	1	1	2	644	452
	4 E	133	09	21	19	9	3	4		3	1	81	0	1,934
, t	≥	ľ	-	I	1	2	H	1	1	1	1	6	860	
Native	=) er		1	-	1	1	1	ı	1	1	2	176	183
	4 E-4	00	7	ı	-	2	1	I	1	ı	I	11	1,036	9
	×		C	-	-	-	1	-	7	15	19	26	534	604
NON-Narive	E F	1	1	- 1	H	1 1	ı		1	Н	-	4	263	269
	4 E-	l I	2	\vdash	\vdash		1		4	16	20	30	197	
	≥	Ľ	cr	-	-	m	-		7	15	19	35	1,394	1,482
	4 5) (r) [1 1	- 1	1	1	1	1	Н	Н	9	439	45
	4 E	٥ ١	4 <	-	10	cr		-	7	16	20	41	1,833	3

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taniqasıT ,gnijanH BnideiA Wages & Salaries

NATIVE AND NON-NATIVE LABOUR FORCE BY SOURCE OF INCOME AND INCOME CATEGORY

TOTAL MACKENZIE IMPACT CORRIDOR

		\$1-399	\$400-	\$700-	\$1,000- 1,999	\$2,000- 2,999	\$3,000-	\$4,000- 4,999	\$5,000- 5,999	\$6,000 -	\$10,000 & over	Not Spec.	None	Total
Native	×	96	85	57	161	83	57		43	111	α	αο	30	070
	Ŀ	13	7	∞	26	35	26		9)	14	27	183
	<u>[</u>	107	92	65	187	118	83	58	67	120	_∞	112	62	1,061
Non-Native	\mathbb{Z}	\vdash	ı	3	10	10	6	15		236	217	76		, 4
	[± ₁	П	2	2	15	17	24	38		0 60	6	27		260
	H	2	2	5	25	27	33	53	35	331	226	103	31	873
Total	M	95	85	09	171	93	99	58	55	347	0	174	r.	1 482
	Ţ	14	6	10	41	52	50	53	29	104	0	41	40	4.7
	[109	96	70	212	145	116	111	84	451	234	215	93	1,934
Native	M	257	144	18	16	Н	1	I	1	ı	ı	-	1,7,1	ν 2
	ĒΉ	27	9	9	2	I	I	I	1	I	ı		1/1	100
	E-I	284	150	24	18	П	1	1	1	1	ı	7	582	1,061
Non-Native	M	288	31	7	7	-	ı	ı	I	1	!	-	271	7
	ഥ	6	2	1	Н	1	ı	ı	1	1		1	777	260
	Η	297	33	5	00	-	1	ı	1	1	1	l l	528	873
Total	Σ	545	175	23	. 23	2	ı	ı	1	1	ı	0	710	~
	፲	36	∞	9	3	ı	1	ı	1	ı	į	1 -	308	t <
	E-1	581	183	29	26	2	ı	ı	ı	1	ı	4 00	1,110	1,934
Native	M	91	98	99	184	88	99	77	77	112	10	57	30	878
	Ē-	18	00	11	28	32	29	16	9	6		50	17	183
	<u>-</u>	109	76	77	212	120	95	09	50	121	10	99	47	1,061
Non-Native	\mathbb{Z}	36	5	9	11	10	6		12	235	220	7/8	-	,
	[Zi	4	n	2	15	17	24	00	23	0	077	2 0	16	269
	⊢	40	∞	σ	26	27	33		35	329	230	57	27	873
Total	Ξ	127	91	72	195	98	75	59	56	347	230	0.1	/11	~
	ĬΞ	22	11	13	43	64	53	54	56	103	10	30	7 t	70467
	E-	149	102	7,00	238	1/17	100	110) C	0 10	1 -	70	0 1	7 1

- September 30, 1970, Tables 25 to 30. DIAND Mackenzie Manpower Survey, October 1, 1969

Source:

NATIVE AND NON-NATIVE LABOUR FORCE BY SOURCE OF INCOME AND INCOME CATEGORY

TOTAL LOWER MACKENZIE REGION

	\$1-399	\$400 -	\$700- 999	\$1,000- 1,999	\$2,000-	\$3,000 - 3,999	\$4,000- 4,999	5,999	\$6,000- 9,999	& over	Spec.	None	Total
		0.5	21	78	177	25		25	65	9	33	54	403
Native		TP '	17	17	25	7 [· m	œ	I	9	17	114
181	F 17	700	26	95	99	40	36	28	73	9	39	71	517
		0) 1		u	v	ľ	6	200	92	18	29	242
∞ Non-Native	I W	I	T	7) (٦ ٦) [1 =	63	7	9		113
	I Fig. E	~-	1 -	1 7	n oo	10	20	13	144	96	24	34	355
ge,			H (- 6		00	77	27	146	86	51	83	645
Total			22	282	4 c	20	000	17	71		12	22	227
	FT 6	5	2,	/T	97	07	56	41	217	102	63	105	872
			7				۳	1	2	ı	33	307	
Native	M 26	10	_	12	Υ)	7	7	l (1 1	ı	, —	112	114
	H		ı	1	1 (1 0	l F		0	ı	34	419	
u ŗ1		10	7	12	Υ	7	- 1	I	1 ,			230	27
Non-Native	M 1	-	1	1	1	ı	ı	ı		1	l -	112	113
			1	I	I	1	1	l	l e	ł	-	351	3.1
	H	⊢ .	1	1	I	ı	I	l	7	I			
E		-	7	12	<u>ش</u>	2	₩	1	3	1	33	546	645
Toral					- 1	1	ı	ı	ı	ı	2		77
	F 78	1 =		12	n ۳	2	Н	1	3	ı	35		
	1				۳	٢	1	ı	1	ı	7	394	403
Native	M 2	H	I	1	-	7	l		1	1	2		
2	F 1		ı	П	1 1	1	I	I		1	9		
110			ı			T	1	I	ı				
		-	-		1	ŧ		Н	Н	6	9		242
Non-Native			4	4	1	ı	ı	1	1		1		TT
dn	Ta I	1 -	1 -	1 -	l f	ı	_	F	1	10	7	33	35
<u>ı</u> ı_ –	-		-	1	,	r	l -	-	-	0	10	61	9
Total			H	П.	7	7	7	4	4 I		3	22	227
ac	H 1	-	1	- († 1	1 -	l F	۱ -	-	101	13	836	87
				~		7	-	-	4	1			

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NATIVE AND NON-NATIVE LABOUR FORCE BY SOURCE OF INCOME AND INCOME CATEGORY

TOTAL LOWER MACKENZIE REGION

Notivo		\$1-399	6669	666	1,999	\$2,000- 2,999	3,999	4,999	\$5,000- 5,999	\$6,000 9,999	\$10,000 & over	Not Spec.	None	Total
וומרדים	M	00	15	19	76	46	27	Ca			8			
	[*	7	7	\ L^	00	о 1	7 1	0 0	67	200	٠	52	14	403
	E	. u	- () ?) C	7	CT			∞	1	∞	13	114
	1	CT	13	47	112	/1	42	30 00	28	92	5	09	27	517
Non-Native	Σ	-	ı	-	ιΩ	٦٢	ľ	9	C	60	10	C	7	
	<u> T</u>	1	-	ı	1	7) Ц) L) 4		TOT	77	11	747
	\vdash	П	- 1	,	ľ	ηα	7	71	11	63		7	m ·	113
,	1	I	ł	-1)	0	TO	7.7	14	146	901	28	14	355
Total	Z I	6 1	15	20	66	51	32	36	28	151	106	73	25	7
	[파		5	5	18	28	20	23	14	71	20	15	19	0
	E-4	16	20	25	117	79	52	59	42	222	111	0 00	41	872
Native	M	107	9/	∞	2	1	ı	ı	ı	1		4-		
	ſΞi,	19	2	7	2	ı	ı	ı		l i	l	-	607	η -
	E	126	78	12	4	1	1	ŧ	ı	1 1	l I	I -	70	114
Non-Native	E	98	13	n	9	1		ı				4	1 1	
	[z.	9	ı	1	,	١			ı	ı	1	i	L34	242
	⊢	92	13	n	7	1	. 1	l I	1 1	å l	1 1	1 1	106	113
Total	M	193	89	11	00	ı		ı				۳	7 6	
	ĬΞ	25	2	4	i cri	ı	ı	l (ſ	i	ł	_	343	645
	⊟	218	91	15	11	ı	1	1 1	l i	1 1	1 1	ı -	193 536	227
Native	X	18	18	19	91	48	35	29	25	88	7	21	2 .	7
	Ĭ'n,	11	4	7	19	22	17	0) m	000	- 1	70	1 T	117
	H	29	22	26	110	70	52	38	28	9/	7	35	24	517
Non-Native	Σ	6	2	2	9	5	2	9	cri	00	102	1.0	7	27.0
	Ē4	1		ı	1	3	5	15	11	62	1 4	77	~ 6	247
	<u>[</u>	10	က	2	9	00	10	21	14	145	108	18	10	355
Total	×	27	20	21	97	53	40	35	28	151	100	7.3	10	27.2
	ĬŦ,	12	2	7	19	25	22	24	14	107	407) t	13	4 0
	Η	39	25	28	116	78	62	59	42	221	115	7 FO	37,	177

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 31 to 36.

BY SOURCE OF INCOME AND INCOME CATEGORY NATIVE AND NON-NATIVE LABOUR FORCE

TOTAL CENTRAL MACKENZIE REGION

		\$1-399	-007\$	\$700-	\$1,000- 1,999	\$2,000-	\$3,000-	\$4,000- 4,999	\$5,000-	\$6,000-	\$10,000 & over	Spec.	None	Total
						4		,	0	F	2	2	35	5
Native	Σ	19	19	10	23	, 9T	CT ,	1 c	7 -		1	- 1	9	27
	[II	m	2	П	7	4	4	7	⊣	T	c	0	7.1	00
	- E	22	21	11	27	20	19	9	m		7	7	Ť)
	4			T			1	0	2	22	26	5	7	62
Non-Native	Σ	1	ı	-1	ı	1 (١ ~	1 C)	7		l		17
	ľΉ	i	ı	1	ı	m († •	7 ~	۱۲	20	27	7.		79
	[1	1	_	I	3	4	7	7	67	1)		(
		1	7	F F	23	16	7.	9	4	33	28	7		220
Total	Σ	19	19	77	67) L		9	_	7	Н	1		77
	[I	n	2	⊣ ;	4 0	- 00	2 0	1 0	ור	40	29	7	45	264
	Η	22	21	7.7	17	67	0	o H				0		1.00
Nativo	Σ	51	20	3	3	1	1	ł	I	ı	1	N 1		27
Nactve	1 1	l	ŀ	1	1	1	I	ı	I	1	ı			185
	4 E	7,	20	cc	C	ļ	1	1	1	I	I	7		1
	7	10	1)						I	1	ı		62
Non-Native	Σ	ı	1	ı	1	1	ı	l	ı	1	1	1		17
	ĹΤΙ	1	ı	1	I	I	1	I	l	ı	1	1		79
	Η	ı	1	1	I	1	1	1	1			•		0
		1	(C	C	1	1	ł	1	1	I	6		220
Total	Σ	51	20	Υ	2	1			ı	1	1	1		77
	ഥ	1	I	l	t	ı	1	I		ı	1	6	178	264
	Η	51	20	3	m	1	ı	I	1					L
								ı	l	1	1			158
Native	Σ	⊣	1	1	I	1	i		1	1	ı	1	. 25	27
	ᄺ	П	- -	1	1	L	ı	I			ı			185
	[2	Н	1	1	1	1	l	ł	l		•		,
	4	ı						ı	-	í	ı		9	62
Non-Native		1	1	l	I	I	1		1 1	I	1		1	17
	Ţ	1	1	t	I	1	1	1	l -	1	ı		2 76	79
H-	H	I	1	I	1	I	I	ŧ	-1	I			Č	000
		1				1	1	1		ı	1	. 7	17	077
Total	\mathbb{Z}	-	1	1	t		ı	ł	1	1	l		L 41	77
	ഥ		-	I	I	I			-	ı	1	· ,	25	264
	E	c		-	1	1	1	ı	+					

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NATIVE AND NON-NATIVE LABOUR FORCE BY SOURCE OF INCOME AND INCOME CATEGORY

TOTAL CENTRAL MACKENZIE REGION

		\$1-399	\$400-	\$700-	\$1,000- 1,999	\$2,000-	\$3,000-	\$4,000- 4,999	\$5,000-	\$6,000-	\$10,000 & over	Not Spec.	None	Tota1
Native	M	30	23	12	28	18	16	7	2	11	2		0	L
	[z _i	3	3	H	4	4	4	. 2	1	1 1	1 1	t i	0 14	100
	E-I	33	26	13	32	22	20	9	l m	11	2	7	13	185
Non-Native	M	ĺ	ı	Н	1	ı	1	2	6	21	26	9		V
	压	ł	1	ı	1	ന	7	10	1 1	77	0 -	>	t	70
	Η	1	ı	Н	ı	n m	7	1 4	2	28	27	1 9	1 4	71
Total	\mathbb{Z}	30	23	13	28	18	16	٧	7	32	28	0		000
	ഥ	3	က	Н	4	7	00	7	-	7	0) I	7 1	7.7
	⊢	33	26	14	32	25	24	10	5	39	29	10	17	264
Native	M	57	29	Т	9	ı	1	ş	í	ı	1	ı	6.5	00
	ĽΉ	4	2	2	ı	I	ı	ı	1	ſ	ı	-	0 00	_
	EI	61	31	3	9	ı	1	ŧ	ı	ſ	ı	I —	83	182
Non-Native	\mathbb{Z}	31	2	1	1	1	ı	1	ı	1	ţ	ı	29	
	ᄄ	1	1	ı	ı	ı	ı	ı	1	ı	1	1	17	17
	H	31	2	1	1	ı	ı	í	8	1	I	1	46	79
Total	Σ	88	31	1	9	ſ	ı	i	1	ı	1	ı	76	220
	ĒΨ	4	2	2	1	1	1	ı	1	1	î	-	3.	77
	H	92	33	3	9	1	ı	1	ı	ı	1		129	264
Native	M	21	23	12	37	20	16	9	. 2	11	2	7	7	158
	Ē.	2	4	n	7	7	4	2	Η	1	1 [- ,	10
	H	23	27	15	42	24	20	00	c	11	2	1 50	5	185
Non-Native	\mathbb{M}	3	1	Н	1	I	1	2	2	21	27	2	7	62
	드	ł	1	ı	1	m	4	2	1	7	Н	1	1	17
	EH	3	ı	1	ı	3	4	4	2	28	28	2	7	79
Total	M	24	23	13	37	20	16	œ	7	32	29	9	00	220
	Ē	2	4	m	5	7	∞	4	Н	7	-) _F	, (77
	E	2.6	27	16	7.0	27	70	7	L	0		1 6		- (

to 36. 31 September 30, 1970, Tables 1 DIAND Mackenzie Manpower Survey, October 1, 1969

Source:

APPENDIX 11 (cont'd)

NATIVE AND NON-NATIVE LABOUR FORCE BY SOURCE OF INCOME AND INCOME CATEGORY

TOTAL UPPER MACKENZIE REGION

		\$1-399	\$400 -	\$700- 999	\$1,000- 1,999	\$2,000- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000-	\$6,000-	\$10,000 & over	Not Spec.	None	Total
	J.C.	o c	3/,	o	36	1.5	13	∞	15	31	Н	30	97	317
Native	E F	0 6	7		>>		7	٦			ı	9	7	42
រៀនរ	¥ [-	30	34	11	40	21	20	13	17	32	1	36	104	359
	;)	F	F	и	"	7	7	9	117	87	30	44	300
Non-Native	Σ	1 1	٠,	-1 0	ر ا	† r		21	0 -	10		00	16	139
	Œ E		1 6	77 F	20	15	19	28	18	141	84	48	09	439
Mag	4 >	ر ا د	ر ا بر) (1.7	19		15	21	148	82	09	141	617
locar	= 1	07) 	7	10	17	22	26	14	25	m	24	23	181
	4 E	31	36	14	09	36	39	41	35	173	85	84	164	
,	1 ;	1 1		r	7	c	-	6	ı	1	ı	31	182	317
Native	ΣΙ	24	67	11	‡	r	4 1	1 1	ı	1	j	ı	42	
	ا بدآ	1 ~	1 6	l -	1 8	I ("	l	0	ı	1	ı	31	224	359 9
	H	24	67	11	†	1	4	1				•	0	
S Non-Native	Σ	١	1	1	ı	ł	1	Н	ı	1	ı	9	293	300
	[±	ı	1	1	1	1	i	1	i	ı	ı	1 '	139	139
	. E	1	1	1	t	1	1	Н	1	ł	1	9	432	439
T.	>	7	00	11	~	c	-	cc	1	ı	f	37	475	617
Toral	E I	74	7.3	11	r)	()	1	ı	1	1	i	181	181
	Ξ4 E-	54	29	1 1	1 7	<u>ښ</u>	Н	3	ı	1	ı	37	929	798
Notivo	×		1	ı	ı	Н	1	1	ì	1	ı	4	310	317
	1 12	۰ -	ı	1	1	1	1	ı	i	1	t	ı	41	7.5
	4 E-	H (17)	1	1	1	Н	1	1	1	1	I	4	351	359
Non-Nati we	Σ	1	-	- 1	ı	Н	ı	1	2	14	10	19	253	300
	į į	ı		1	1	1	ı	aller	1	-1	ı	2	136	139
	4 E-	ı	-	-1	ı	Н	ı	I	2	15	10	21	389	439
E	>	c	- ا	1	1	6	ı	1	2	14	10	23	563	617
n rocar	E F	7 -	1	l		1	ı	1	1	Н	ı		177	181
	Ξų E	Т С	1 -	l	1	2	- 1	ı	2	15	10	25	740	798
	-	7	1	1	1	1			ı					

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NATIVE AND NON-NATIVE LABOUR FORCE BY SOURCE OF INCOME AND INCOME CATEGORY

TOTAL UPPER MACKENZIE REGION

	Native F	Non-Native F		Native M	Non-Native M	otal F	lative M	Non-Native F	otal M
\$1-399	M 56 F 3	L L L Z		M 93 F 4 T 97	M 171 F 3 T 174	M 264 F 7 T 271	4 52 3 5	M 24 F 3 T 27	76
\$400-	47	1 11 1	1 1 48	39 2 41	16 2 18	55 4 59	45	622	48
\$700-	26 2 28	1 3 2 7	31	010	7 - 7	11 11	35 1 36	6 6 7 7	38
\$1,000- 1,999	39 4	15 20	19	∞ 1 ∞	- 1 -	010	56 4 60	5 15 20	19
\$2,000- 2,999	19 6 25	11 16	17 41	- 1 -		818	20 6 26	5 11 16	25
\$3,000-	14 7 21	115	75 70 70	1 1 1	1 1 1	1 1 1	15 8 23	4 15 19	23
\$4,000- 4,999	9 5	288	10 26 42	1 1 1	1 1 1	1 1 1	9 2	7 21 28	16 26
\$5,000-	16 2 18		14 37	1 1 1	1 1 1	1 1 1	17 2 19	7 12 19	24
\$6,000- 9,999	32 1 33	132 25 157	26 190	1 1 1	1 1 1	1 1 1	33 1 34	131 25 156	164
\$10,000 & over	нін	93	91	1 1 1	1 1 1	1 1 1	н I н	91 3 94	92
Not Spec.	42 6 48	49	91 26 117	1 1 1	- 1 -	- 1 -	22 4 26	20 17 37	42 21
None	16 6 22	13	16 19 35	167 36 203	108 134 242	275 170 445	12 6 18	13	12
Total	317 42 359	300 139 439	61 / 181 798	317 42 359	300 139 439	617 181 798	317 42 359	300 139 439	617

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DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Tables 31 to 36.

Source:

APPENDIX 12

NUMBER OF PERSONS EMPLOYED AND TOTAL EARNINGS BY EMPLOYER, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

	Non-Native	e Female Total	Earned No. Earned No. Earned	211 027 000	611,621 44 236,466 116 030,009 NS 1 NS 4 NS	31,036 3 11,000 8 42,036	1 1	29,300 3 10,528 6 39,828	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	671,957 50 259,996 130 931,953 NS 1 NS 4 NS	10,000 1 4,000 3 14,000 NS - 1 NS	I I	15,000 1 12,000 3 27,000	10,000 1 10,000	20,000 2 7,000 4 27,000	55,000 4 23,000 11 78,000 NS NS
		Male	No.		3 6	5	i	3	1 1	3	1	ı	2	\vdash	2	7
RNMENT		Total	Earned		156,764 NS	27,560	7,380	102,364	42,842 NS	336,910 NS	N/Av	067,9	14,500	17,389	7,000	45,379
FEDERAL GOVERNMENT		Tot	No.		42	12	2	38	27	121	N/Av	11	5	13	2	31
FEDER	Native	Female	Earned \$		48,950 NS	1,680	1,680	096	5,980 NS	59,250 NS	N/Av	1,500	12,000	300	7,000	20,800
	Nat	Fen	No.		20	\vdash	П	П	6	26	N/Av	2	7		2	6
		le	Earned \$		$107,814$ NS_{1}	25,880	5,700	101,404	36,862 NS	277,660 NS	N/Av	4,990	2,500	17,089	1	24,579
		Male	No.		22	11	Н	37	24	95	N/Av	6	1	12	-1	22
				Lower Mackenzie Region	Inuvik	Aklavik	Arctic Red River	Fort McPherson	Tuktoyaktuk	Total Lower Region	Central Mackenzie Region Norman Wells	Colville Lake	Fort Franklin	Fort Good Hope	Fort Norman	Total Central Region

refers to persons for whom amounts of wages and salaries not obtained by survey. NS $\frac{1}{1}$

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, based on special computer run giving count of occupation, by employers, by total wages and salaries earned.

APPENDIX 12 (cont'd)

NUMBER OF PERSONS EMPLOYED AND TOTAL EARNINGS BY EMPLOYER, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

				FEDERAL	VAL GOV	GOVERNMENT						
			Z	Native					Non-	Non-Native		
	Ma	Male	[Zi	Female	T	Total		Male	F	Female	£ 1	Total
	No.	Earned	No.	Earned	No.	Earned	No.	Earned	No.	Earned	No.	Earned
Upper Mackenzie Region		-		-)))		9 -
Fort Simpson	15	75,166	9	4,298 NS1/	21	79,464 NS	15	116,791 NS	9 7	1,300 NS	24 8	118,091 NS
Fort Liard	\vdash	6,500	ı	ı	1	6,500	\vdash	10,000	-	1,980	2	11,980
Fort Providence	œ	27,100	-	300	6	27,400	1	1	1	1	ı	1
Fort Wrigley	15	15,209	ı	ı	15	15,209	\vdash	10,000	1	1	Н	10,000
Jean Marie River	\vdash	3,600	1	1		3,600	ł	ı	ı	ı	ı	ī
Nahanni Butte												
Trout Lake												
Hay River	29	67,832 NS	2	12,840 NS	34	80,672 NS	71 3	547,800 NS	51	118,142 NS	122	665,942 NS
Total Upper Region	69	195,407 NS	12	17,438 NS	81	212,845 NS	88	684,591 NS	61	121,422 NS	149	806,013 NS
Total Pipeline Corridor	186	497,646 NS	47	97,488 NS	233	595,134 NS	175	175 1,411,548 8 NS	643	404,418 NS	290 1	1,815,966 NS
Yellowknife	26	80,456 NS	4 1	12,000	30	92,456 NS	118	896,166°	111	446,878	229 1	1,343,044 NS
Rest of District	60	219,356 NS	61	80,275 NS	121	299,631 NS	206	206 1,578,843 9 NS	153	593,503 NS	359 2	2,172,346 NS
Total Remainder	86	299,812 NS	65	92,275 NS	151	392,087 NS	324	324 2,475,009 12 NS	264 1	264 1,040,381 2 NS	588 3	3,515,390 NS
Total Mackenzie District 272	272	797,458 NS	112	189,763 NS	384	987,221 NS	499	499 3,886,557 20 NS	379 1	1,444,799 NS	878 5	5,331,356 NS

NS refers to persons for whom amounts of wages and salaries not obtained by survey.

APPENDIX 12 (cont'd)

NUMBER OF PERSONS EMPLOYED AND TOTAL EARNINGS BY EMPLOYER, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

		Total	Earned	763,295 NS	120,478	1 1	6	58,400	I		942,173		200	1	3 54,000	5 37,240	8 55,050	2 146,790
			No.	98	17	1 1		_	1	I	122		П	1	∞	U į	ω	22
	Non-Native	Female	Earned \$	341,575 NS	42,385	1 1		28,400	1	ı	412,360		200	1	12,800	13,240	10,000	36,540
	Non	Fi	No.	51	6	1 (ı	4	1	1	64		1	I	3	2	1	7
		Male	Earned \$	421,720 NS	78,093	i	t	30,000	ı	ı	529,813		I	ı	41,200	24,000	45,050	110,250
		ΣI	No.	47	00	i	1	3	1	1	58		1	1	5	3	7	15
RNMENT		Total	Earned	186,950 NS	118,142	SN	14,400	57,068	NS	102,824	479,384		N/Av	350	31,850	26,112	57,860	116,172
N.W.T. GOVERNMENT		To	No.	37	36	Н (~	15	1	34	105		N/Av		18	6	19	47
N.W. T	Native	Female	Earned \$	18,860 NS	45,446	ı	ı	32,564	ı	6,514	103,384		N/Av	ı	5,850	7,912	400	14,162
	Na	F.T.	No.	9 7	16	I	ı	00	1	5	35		N/Av	ı	9	4	\vdash	11
		Male	Earned	168,090 NS1/	72,696	SN	14,400	24,504	NS	96,310	376,000		N/Av	350	26,000	18,200	57,460	102,010
		Ma	No.	31	20	П	m	7	П	29	70		N/Av	П	12	5	18	36
			Towns Mostoneria Dordan	Inuvik	Aklavík		Arctic Red River	Fort McPherson		Tuktovaktuk	Total Lower Region	Central Mackenzie Region	Norman Wells	Colville Lake	Fort Franklin	Fort Good Hope	Fort Norman	Total Central Region

NS refers to personf for whom amounts of wages and salaries not obtained by survey. 1

APPENDIX 12 (cont'd)

NUMBER OF PERSONS EMPLOYED AND TOTAL EARNINGS BY EMPLOYER, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

				N.W.T.	GOVE.	GOVERNMENT						
			N	Native					Non-	Non-Native		
	Ma	Male	国	Female	To	Total		Male	F	Female		Total
	No.	Earned	No.	Earned	No.	Earned	No.	Earned	No.	Earned	No.	Earned
Upper Mackenzie Region		/) -		e s				60-		€9-		⊕ -
Fort Simpson	∞ 1	31,393	4	12,806 $NS1/NS1/NS1/NS1/NS1/NS1/NS1/NS1/NS1/NS1/$	12	44,199 NS	4 1	36,000	<u></u>	44,800	11	80,800
Fort Liard	9	20,886	2	5,100	œ	25,986	1	10,000	ı	1	1	10,000
Fort Providence	5	14,950	1	ı	2	14,950	1	ı	ı	t	ı	ı
Fort Wrigley	cc	7,200	\vdash	420	4	7,620	3	25,500	\vdash	5,125	4	30,625
Jean Marie River	7	350 NS	1 1	1 1	7 7	350 NS	1 1	1 1	1 1	1 f	1 1	ŧ 1
Nahanni Butte												
Trout Lake												
Hay River	7	34,900	7	26,288	14	61,188	45	359,190 NS	39	151,306 NS	84	510,496 NS
Total Upper Region	33	109,679 NS	14	44,614 NS	47	154,293 NS	53	430,690 NS	7 7 7	201,231 NS	100	631,921 NS
Total Pipeline Corridor	139	587,689 NS	60	162,160 NS	199	749,849 NS	126	126 1,070,753 3 NS	118	650,131 NS	244	1,720,884 NS
Yellowknife (and village) 21	2) 21	113,290	17 1	59,445 NS	38	172,735 NS	237	2,021,711	185	844,135 NS	422	2,865,846 NS
Rest of District	158	375,024 NS	41 2	112,747 NS	199	487,771 NS	143	1,034,673 NS	105	458,254 NS	248	1,492,927 NS
Total Remainder	179	488,314 NS	58	172,192 NS	237	660,506 NS	380	380 3,056,384 7 NS	290 1	290 1,302,389 6 NS	670	4,358,773 NS
Total Mackenzie District	318 1	318 1,076,003 12 NS	118	334,352 NS	436 1	436 1,410,355 18 NS	506 4	506 4,127,137 10 NS	408 1	408 1,952,520 11 NS	914	6,079,657 NS
$\frac{1}{2}$ NS refers to persons for whom amounts	or who		of wag	ses and sa	laries	of wages and salaries not obtained by survey.	ned by	survey.				

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970. Source:

APPENDIX 12 (cont'd)

NUMBER OF PERSONS EMPLOYED AND TOTAL EARNINGS BY EMPLOYER, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

		Total	No. Earned	+		150 628,989 30 NS	6 5,000 3 NS	1	3 6,520	1	1	159 640,509 33 NS		39 265,758 3 NS	1	7 18,500 3 NS	5 9,100 2 NS	4 3,825 2 NS	55 297,183 10 NS
	Non-Native	Female	Earned No)		117,917 19 NS	200	ı	720	ą	1	118,837 1 NS		22,258 NS	ł	2,500 NS	4,100 NS	3,000	31,858 NS
	Non-	F	No.			47	Н 1	1	\vdash	ł	l .	49		9	t	2	3	~ 1	15
		Male	Earned)		511,072 NS	4,800 NS	ı	5,800	1	ı	521,672 NS		243,500 NS	1	16,000 NS	5,000 NS	825 NS	265,325 NS
		M	No.			103	2000	ı	2	ı	1	110		30	1	2 2	1	5 3	40
EMPLOYERS		Total	Earned	P -		278,298 NS	102,328 NS	57,885	69,233	136,921	NS	644,665 NS		10,000	4,950	42,450 NS	37,991	39,180	134,571 NS
		To	No.			98	67	17	43	9/	3	301		H 1	9	41	. 21	10	79
PRIVATE	Native	Female	Earned	<i>:</i> ₽-		54,918 NS	43,266	2,700	16,034	38,837	NS	155,755 NS		1 1	300	6,600 NS	375	6,580	13,855 NS
	Na	[표]	No.			36	36	3	00	32	-	115		1 1	-	11 4	7 1	7 1	18
		Male	Earned	69 -		223,380 NS1/	59,062 NS	55,185	53,199	98.084	NS	488,910 NS		10,000	4,650	35,850 NS	37,616	32,600	120,716 NS
		Ma	No.			62	31	14	35	77	2	186		H 1	5	30	19	9 1	61
					Lower Mackenzie Region	Inuvik	Aklavik	Arctic Red River	Fort McPherson	Tuktowaktnik	Take of areas	Total Lower Region	Central Mackenzie Region	Norman Wells	Colville Lake	Fort Franklin	Fort Good Hope	Fort Norman	Total Central Region

NS refers to persons for whom amounts of wages and salaries not obtained by survey. 1

APPENDIX 12 (cont'd)

NUMBER OF PERSONS EMPLOYED AND TOTAL EARNINGS BY EMPLOYER, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T.

			Þ	PRIVA	PRIVATE EMPLOYERS	LOYERS			2			
			4	Native					Non	Non-Native		
	Σ	Male	[II.	Female	To	Total		Male	H	Female		Total
	No.	Earned	No.	Earned	No.	Earned	No.	Earned	No.	Earned	No.	Earned
Upper Mackenzie Region		-))		9-		0 -		A
Fort Simpson	21 5	21,905 NS <u>1</u> 5	∞ ⊢	9,461 NS	29	31,366 NS	00 7	45,700 NS	5	13,250	13	58,950 NS
Fort Liard	\vdash	5,400	1	ı	Н	5,400	2	7,900	\vdash	8,800	m	16,700
Fort Providence	17	33,502	7	8,943	24	42,445	1	1	į	1	1	ı
Fort Wrigley	2	5,500 NS	7	200	7	5,700 NS	Н —	4,500	H 1	006	7	5,400
Jean Marie River		NS		N N S	2 2	NS NS	1 1	1 1	1 1	1 1	1 1	1 1
Nahanni Butte	9	7,900	1	1	9	7,900	-	I	t	t	1	I
Trout Lake												
Hay River	46	93,835 NS	22	21,307 NS	68	115,142 NS	136	678,415 NS	92	194,155 NS	228	872,570 NS
Total Upper Region	97	168,042 NS	40	39,911 NS	137	207,953 NS	147	736,515 NS	99	217,105 NS	246	953,620 NS
Total Pipeline Corridor	344	777,668 NS	173	209,521 NS	517	987,189 NS	297	1,523,512 NS	163	367,800 NS	460	1,891,312 NS
Yellowknife (and village) 77	2) 77	298,512 NS	31	69,770 NS	108	368,282 NS	856	5,716,662 NS	338	1,010,903 NS	1,194	6,727,565 NS
Rest of District	132	206,712 NS	82	95,451 NS	214	302,163 NS	387	2,280,942 NS	144	233,274 NS	531	2,514,216 NS
Total Remainder	209	505,224 NS	113	165,221 NS	322	670,445 NS	1,243	7,997,604 NS	482	1,244,177 NS	1,725	9,241,781 NS
Total Mackenzie District	553	553 1,282,892 63 NS	286	374,742 NS	839 1	1,657,634 NS	1,540	1,540 9,521,116 105 NS	645	1,611,977 NS	2,185	11,133,093 NS
NS refers to persons for	or wh	for whom amounts	of	wages and sa	salaries	not obtained by	ined by	survey.				

APPENDIX 12 (cont'd)

NUMBER OF PERSONS EMPLOYED AND TOTAL EARNINGS BY EMPLOYER, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.T. SELF-EMPLOYED1/

SELF-EMPLOYED-	Non-Native	Total Male Female Total	No. Earned No.	S S S S S S S S S S S S S S S S S S S	(\$) -		10 6,000 2 NS 12	NS 9 NS 2 NS LI	3,960 5 10,000 5	NS 2 NS 2	1	t t	1	1 1	1 I SN	76 42,004 15 16,000 2 NS 17 16,000 17 NS 11 NS 2 NS 13 NS		1	1 1	1	2 18,000 2	1	1	NS .	1 1	I SN	2 18,000 2	10,100
SE	Native	Female	No Earned		\$		5 3,800	1	8 260		ı	I NS	NS I		2 NS	16 4,060 9 NS		1	1 NS	1 NS	3 NS	3 NS	1	1	7 NS	NS L	N LI	
		Male	NO F	No. Earned	4		24 14,000	$1 \frac{NS^2}{}$	10 3.700		9 6,250	11 13,229	` i	6 765	Z	97,944 NS		1	2 3,000	1	23 9,300		SN NS		20 13,425		20 75 775	
						Lower Mackenzie Region	Inuvik	3 3 4 4 4 4	J 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	AKIGVIK	Arctic Red River	Fort McPherson		Tuktovaktuk		Total Lower Region	Central Mackenzie Region	Norman Wells	Colville Lake		Fort Franklin		Fort Good Hope		Fort Norman		£	TOTAL KAGION

1/ Excludes those hunting, trapping, fishing.

NS refers to persons for whom amounts of wages and salaries not obtained by survey.

APPENDIX 12 (cont'd)

NUMBER OF PERSONS EMPLOYED AND TOTAL EARNINGS BY EMPLOYER, MACKENZIE IMPACT CORRIDOR SETTLEMENTS, N.W.I.

No. Earned No.													
No. Earned No.				Z	ative					Non-	Native		
No. Earned No. Earned No. Earned No. Earned No. Earned No. Earned No. 3 NS2 3 NS 6 NS - - - - - - - - -		Ma	11e	교	emale	TC	otal		Male	F	male	Tot	:a1
1	nor Marbanaia Boaton	No.	Earned \$	No.	Earned \$	No.	Earned \$	No.	Earned \$	No.	Earned \$	No.	Earned
1	Fort Simpson	m m	$\frac{2}{NS}$	m m	NS NS	9 9	NS	1 1	1 1	1 1	1 1	1 1	1 1
19 2,600 - 1	Fort Liard	62	18,220 NS	2	NS NS	64	18,220 NS	1 1	t f	1 1	1 1	1 1	i i
NS	Fort Providence	19	2,600 NS	1 1	1 1	19	2,600 NS	1 1	1 1	f - j	1 1	1 1	1 1
5 424 - - 424 - <td>Fort Wrigley</td> <td></td> <td>NS</td> <td>н I</td> <td>1,700</td> <td>7 7</td> <td>1,700 NS</td> <td>1 1</td> <td>li</td> <td>1 1</td> <td>1 1</td> <td>1 1</td> <td>1 1</td>	Fort Wrigley		NS	н I	1,700	7 7	1,700 NS	1 1	li	1 1	1 1	1 1	1 1
8 3,000 - - 8 3,000 -	Jean Marie River	5	424	ı	i	5	424	1	ı	1	1	i	ı
10 NS - - 10 NS - <td>Nahanni Butte</td> <td>œ 9</td> <td>3,000 NS</td> <td>1 1</td> <td>1 1</td> <td>œ ७</td> <td>3,000 NS</td> <td>ı</td> <td>1</td> <td>t</td> <td>Ī</td> <td>1</td> <td>ı</td>	Nahanni Butte	œ 9	3,000 NS	1 1	1 1	œ ७	3,000 NS	ı	1	t	Ī	1	ı
17 3,000 - - 17 3,000 47 33,600 3 4,500 50 125 NS - - - 7 NS 29 NS - - 29 125 NS - - - 7 NS 29 NS - - - 29 235 NS 5 NS 34 NS 29 NS - - NS 29 244 NS 5 NS 69 NS 40 NS 2 NS 42 NS 2 NS 42 NS 2 NS 42 NS 2 NS 42 NS 40 NS 112,500 15 4,500 8 4,500 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 </td <td>Trout Lake</td> <td>10</td> <td>NS</td> <td>1 1</td> <td>1-1</td> <td>10</td> <td>NS NS</td> <td>f I</td> <td>1 1</td> <td>1 1</td> <td>1 1</td> <td>1 1</td> <td>1 1</td>	Trout Lake	10	NS	1 1	1-1	10	NS NS	f I	1 1	1 1	1 1	1 1	1 1
125 27,244 6 1,700 131 28,944 47 33,600 3 4,500 50 29 NS	Hay River	17	3,000 NS	T T	1 1	17	3,000 NS	47	33,600 NS	m ۱	4,500	50	38,100 NS
235 90,913 33 5,760 268 96,673 64 67,600 5 4,500 69 44 NS 25 NS 69 NS 69 NS 7 112,500 15 21,240 88 123 17,207 12 700 134 17,907 19 51,845 4 980 23 124 17,207 13 2,700 140 21,907 92 164,345 19 82,220 111 11 125 19,207 13 2,700 140 21,907 92 164,345 19 82,220 111 11 126 NS 8460 407 118,580 156 231,945 24 26,720 180 22 110 NS 28 NS NS 69 NS NS NS 69 NS	Total Upper Region	125	27,244 NS	9 2	1,700 NS	131	28,944 NS	47	33,600 NS	n ا	4,500 NS	50 29	38,100 NS
123 17,207 12 700 134 17,907 19 51,845 4 980 23 8 12 12 17,207 12 17,207 13 12,500 140 21,907 19 164,345 19 10 12 11 11 11 11 11 11 11 11 11 11 11 11	Total Pipeline Corridor	235	90,913 NS	33	5,760 NS	268	96,673 NS	79	67,600 NS	2	4,500 NS	69	72,100 NS
123 17,207 12 700 134 17,907 19 51,845 4 980 23 63 NS 66 NS 9 NS 12 127 19,207 13 2,700 140 21,907 92 164,345 19 22,220 111 1 66 NS 3 NS 69 NS 30 NS 120 NS 82 110 NS 28 NS 138 NS 70 NS 12 NS 82 110 NS 28 NS 138 NS 70 NS 12 NS 81 110 NS 28 NS refers to present for whom amounts of waves and salaries not	Yellowknife (and village		2,000 NS		2,000	12 K	4,000 NS	73	112,500 NS	15	21,240 NS	88	133,740 NS
127 19,207 13 2,700 140 21,907 92 164,345 19 22,220 111 6 NS 30 NS 10 NS 40 NS 40 NS 10 NS 40 HS 10,120 46 8,460 407 118,580 156 231,945 24 26,720 180 NS 12 NS 138 NS 70 NS 12 NS 82 HS 110 NS 12 NS		123	17,207 NS	12 3	700 NS	134	17,907 NS	19	51,845 NS	3 4	980 NS	23	52,825 NS
362 110,120 46 8,460 407 118,580 156 231,945 24 26,720 180 110 NS 28 NS 138 NS 70 NS 12 NS 82 12 NS 138 Triboning Fishing 2/ NS refers to persons for whom amounts of wages and salaries not	Total Remainder	127	19,207 NS	13	2,700 NS	140	21,907 NS	92	164,345 NS	19	22,220 NS	111 40	186,565 NS
	tal Mackenzie District		110,120 NS	28	8,4 NSN	138	118,580 NS	156 70 e for t	231,945 NS	24 12	26,720 NS		258,665 NS

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Potential of Territorial Labour Force Supply to Meet Pipeline Labour Demand



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CHAPTER 1

INTRODUCTION

General Considerations

Pipeline construction and ancillary activities will create a large labour demand in the Mackenzie Valley. Government plans call for the recruitment of as many territorial residents as possible in the direct pipeline work force, as well as in related and supportive activities. The success of programs to actively involve northern residents will depend on a number of factors, e.g., location of potential workers; assessment of their qualifications for pipeline and related work; of their willingness and abilities to take such work; development of mutually satisfactory (to industry, government and territorial residents) programs for training and re-location of territorial residents involved with pipeline work; development of plans to re-integrate into local community work forces those territorial residents who cannot or who do not wish to continue in pipeline work.

There will be a number of problems to overcome in efforts to involve territorial residents to the maximum extent feasible in work on the pipeline. Solving these problems, which are discussed in appropriate parts of the impact study, will require concentrated efforts by both the federal and territorial governments. One basic and immediate problem facing the responsible authorities will be that of fielding a large enough work force — in sheer numbers — to meet any targets or quota for inclusion of territorial residents in the pipeline work force. The next pressing problem will be that of ensuring that territorial residents, particularly native residents, are adequately qualified for pipeline work, or that they may have the opportunities to become qualified through such means as special training situations, on—the—job training experience, and basic training programs for the inexperienced potential work force.

Purpose and Approach

Because government authorities and territorial residents themselves are concerned with involvement in pipeline work, it is necessary to examine the potential of the local territorial labour force. In Part 1 of Volume 6, the population and labour force of the Mackenzie Impact Corridor are described in terms of their basic characteristics, on the basis of results of the D.I.A.N.D. Mackenzie Manpower Survey. This description of the population covers a period of time in which no significant economic development activities occurred in the Mackenzie Valley, i.e., October, 1969 - September, 1970. Conditions described for this period have been regarded as representative of conditions prevailing for the base case or pre-pipeline period, essentially an "as is" situation. The material in Part 1, Volume 6, together with the relevant parts of Volumes 4, 5 and 7½, provide background information on which assumptions have been made concerning likely future developments resulting from pipeline construction.

 $[\]frac{1}{2}$ Those parts pertaining to the non-pipeline situation.

The purpose of Part 2 of Volume 6 is to analyse the potential territorial labour supply, with emphasis on that of the Mackenzie Impact Corridor, in terms of the basic qualifications of the base case work force, and to determine what actions may be necessary to prepare territorial residents for active participation in pipeline construction work. No attempt is made to project labour supply, the numbers of workers likely to be available at any particular phase of the pipeline program, since this is done in Volume 7. Part 2 concentrates on pipeline work. No examination is made of projected labour requirements in other sectors, e.g., mining, business, industry, other than through examination of the local (Impact Corridor) labour force in some detail, with limited discussion of the labour supply picture elsewhere in the N.W.T.

Sources of Data

As in Part 1 of Volume 6, the primary source of data for analysis of the corridor labour force is the D.I.A.N.D. Mackenzie Manpower Survey. There are certain limitations to the survey data, as indicated in Chapter 1, Part 1. The chief limitation concerns coverage of the non-native population group. The survey covered only 41 per cent of the total non-native population of the corridor. Therefore, figures pertaining to non-native persons are used for qualitative comparison only and are not intended to represent actual numbers, qualifications and so forth.

The manpower survey covered approximately 87 per cent of the total native corridor population. While this is not full coverage, the quality of the information obtained has allowed more extensive use of these data than for the non-native group. Information obtained on respondents concerning occupations and training has, for the majority of those natives from whom specific responses were received, been verified and/or supplemented by information obtained from documents, paylists, training records, and similar sources. The native sample may thus be regarded as an accurate representation.

The primary source of data for pipeline labour requirements is Volume 2 of the impact study, "Relevant Aspects of Pipeline Construction and Operation in the Territories and Impact on Local Resources", specifically Part 2, "Requirements for Base Case and Alternative Mackenzie Valley Pipelines". Additional data have been drawn from background papers supportive to Volume 2. Volume 2 treats direct pipeline labour requirements as well as indirect, including transportation components. The latter are treated in detail in Volume 3, "Impact of Pipelines on Territorial Transportation Facilities, Resource Output and Industrial Development" (Part 2: "Pipeline Impact on Transport"). Part 2 of Volume 6 treats only labour supply in relation to pipeline work, and relies, therefore, on those transportation labour requirement data presented in Volume 2.

Ideally, assessment should be made of the labour supply in relation to all pipeline-related or pipeline-generated activities, including transportation. This has not been done in Volume 6, other than through presentation of a skills inventory of the population. From the latter it is possible to obtain an indication of the likely ability of the corridor labour force to fill transportation-related jobs on the basis of qualification or work experience, as well as other jobs in other sectors, e.g., mining, business, service, etc.

2 - 4

CHAPTER 2

BASIC QUALIFICATIONS OF THE IMPACT CORRIDOR LABOUR FORCE

Introduction

In Volume 2, the total numbers of workers needed for each phase of pipeline construction and operation are given, along with the wide range of qualifications and relevant job experience required for various aspects of the project. 1/0 bviously, numbers of highly skilled workers, persons with advanced formal academic training, persons with specialized technical and trades training and those with much direct on-the-job pipeline construction experience will be required, as will many general workers, throughout the construction period. For the operation and maintenance phases, the numbers of workers required will be lower, but the skill levels possessed by those permanent operating personnel will be quite high. It is clear, however, that there will be large numbers of jobs, for varying lengths of time, for persons with relatively low levels of formal education, trades training, and direct pipeline work experience.

In assessing the potential of any group of workers to participate in a project such as construction of a pipeline, the job specifications must be known. Then the potential work force must be scrutinized in terms of basic education, skill development, and work experience. In the case of the pipeline, a portion of the work force will require work experience in pipeline construction work. Another portion will, however, be required to have only relevant work experience.

In Chapter 2, the basic qualifications of the corridor labour force are examined in general terms. Again, emphasis is placed on the basic qualifications of the native work force. 2 In succeeding chapters, both the corridor labour force and the native labour force of the remainder of the N.W.T. are assessed in terms of the particular skill requirements of the actual pipeline construction project.

Background Education

The basic education of the native population of the corridor was analyzed in Chapter 2 of Part 1. From this analysis, it was determined that the native population overall, particularly in the age groups over 25 years of age, was essentially poorly educated. Only five per cent of native residents over 14 years of age had completed grades 10 or 11, only two per cent had attended grades 12 or 13 (Part 1, Chapter 2, Table 7).

^{1/} Volume 2, Part 2.

The majority of the resident non-native labour force in the corridor and throughout the N.W.T., is in a permanent employment situation - e.g., government. Only a small proportion would seek pipeline work. However, members of the non-native labour force in the North are far more mobile, far more able to seek - and find - work than are the native residents, most of whom will require assistance in one form or another to obtain work on the pipeline.

There is no noticeable difference between the level of basic education of the labour force and the over-14 population.

Skill Training

In the mid-1950's, the federal government initiated an intensive program to expand education facilities throughout the N.W.T. and to develop programs which would provide education and training to territorial native residents who had formerly had very little exposure to it. While elementary schools were being built, programs were also launched for those beyond school age. The latter action was given considerable impetus by the construction of the DEWline. Many natives received trades training to enable them to participate in the construction and operation of the DEWline. Efforts have continued over the years to up-grade natives by means of vocational training.

For those native persons now between 25 to 30 years of age, the achievement of the necessary school grade levels for entrance to formal trades training programs was difficult. Many, lacking formal education, had little or no knowledge of or ability to use English and were thus limited in the types of skill training programs to which they might have access. The result has been that while numbers of individuals have learned their trades well and are quite proficient, they have been unable to obtain formal certification, and in most cases have been unable to receive full wages according to the prevailing rates for the particular trades. Nevertheless, these people comprise a large block of the experienced, semi-skilled northern native work force.

Over the past decade increasing numbers of young people have been entering the school system earlier, starting their formal education at an age at which they are more likely to adapt to new situations and to be able to progress at a reasonable rate through the school system. They have also been able to enter trades training courses with a better basic education, and thus obtain higher levels of qualification.

Unfortunately, while increasing numbers of reasonably well qualified young native people have been emerging from schools and training centers, many have been unable to practice their trades. For many, especially those who have preferred to remain near home, there have not been sufficient local jobs which could utilize their training and skills. Only a very small number of the total numbers of native persons who have received advanced training in various trades have chosen to work out of their home area or out of the North.

The largest single employer for natives in the N.W.T. has been government — the federal government until 1967, increasingly thereafter the territorial government. Public Service of Canada regulations have, however, played a part in determining how far a man might advance in his trade. If a person had no theoretical knowledge, or, more usually, was unable to express it orally or write it, he was invariably kept either as a labourer with no specific designation, or as a trademen's helper.

These persons quite often advanced to a level as high as receiving 85-95 per cent of the prevailing rate of pay for qualified tradesmen. There is no doubt that economically speaking, this situation has not materially affected or even bothered many people; the pay has been good, and the majority, particularly those over 30, have developed long work histories. It should also be pointed out that many "helpers" have become far better tradesmen than their white foremen from the south. However, in terms of economic development planning, or determining what possibilities exist for natives on projects such as the pipeline, this general lack of formal qualifications of the labour force over 25 years of age will present serious problems. For the younger people, another problem arises: that of not having had sufficient opportunity to practice their trade.

Inventory of Selected Skills

The D.I.A.N.D. Northern Manpower Survey Program identified training courses taken by those respondents who reported having received training. From the variety of types of training taken, a short list has been prepared which comprises training assessed as being relevant to direct pipeline construction work, work in ancillary activities and additional work which might develop in corridor communities as a result of construction and operation of the pipeline. This list, giving codes and the courses, is presented as Table 1. In fact, it covers a wide variety of types of training and as such gives a good overall picture of the general skill levels of the population, particularly the native population.

Table $2^{1/2}$ presents a summary picture of the numbers of persons of both population groups who have taken the training courses listed in Table 1 for the Impact Corridor, the remainder of the Mackenzie District and (for natives only) the rest of the Northwest Territories.

The small numbers of natives who have achieved the higher levels of academic training, such as university level or professional level training requiring grade 12 as minimum qualification, is relatively easily explained in terms of present level of development of the North. What is definitely more serious to consider, particularly in view of the announced policies of placing the maximum possible number of native workers in pipeline construction and (later) maintenance and operation work, is the small number of natives with relevant experience in direct pipeline-related trades of the corridor native population (and also of natives throughout the rest of the Northwest Territories) who have any degree of pipeline-related occupational experience are relegated to the

 $[\]frac{1}{2}$ A detailed summary for the corridor by region and settlement is presented as Appendix 3.

The training course most heavily represented is that of heavy duty equipment operator: 14.9 per cent of corridor natives taking courses received this training, as did 17.2 per cent of all N.W.T. natives who have reported taking training courses. The second highest number of persons have had carpentry training: 16.5 per cent in the corridor, 14.4 per cent in whole of the N.W.T.

Table 1

CODE NUMBERS FOR TRAINING COURSES

RELATED TO PIPELINE CONSTRUCTION

Code	Education & Diploma Program	Code	Education & Diploma Program
005	Caretaker, Domestic Service	081	Bookkeeping
	Janitor	083	Captains' Certificate (ship)
006	Carpentry	087	Machinist
800	Clerical	088	Refrigeration, Air
009	Commercial		conditioning
012	Diesel Operator, Power	089	Water and Sewage Treatment
	Plant	090	Painter, Construction and
013	Driver Training		Maintenance
014	Electrician, Construction,	094	Gas Technology
	Maintenance	095	Minerology
015	Fire fighting, control	096	Explosives, Blasting
	safety	099	General Vocational (varied)
020	Heavy Duty Equip. Operator	102	Bachelor of Arts
021	Lineman	103	Bachelor of Science
022	Marine Mechanics	104	Chartered Accountant
023	Mechanic, motor vehicle	105	Registered Nurse
024	Mechanic, diesel, heavy	107	Bachelor of Commerce
	equipment	118	Draftsman
025	Nursing Aide, First Aid	119	Business Administration
026	Outboard Motor Repair	120	Public Health Nursing
027	Power Plant Operator	121	Other B.A. & B.Sc. levels
028	Plumbing and Pipefitting		in Physical Sciences
029	Practical Nurse	124	Engineering
031	Sheet Metal Worker	129	Law
033	Oil Burner Mechanic	133	Civil Engineering (Diploma)
034	Mechanic, n.e.s.*	138	Chart Surveyor (R.I.C.S.)
035	Oil Well Drilling	139	Construction Management
037	Surveying	140	Marine Mechanical Engineering
040	Cooking	141	Nursing Science (degree)
045	Public Health (community	201	M. Sc.
0.4 =	worker)	202	M.A.
047	Lay Dispenser	204	Ph.D.
048	Pilot Training	208	M.A., Public Administration
049	Waitress	315	Hotel Management
050	Seaman	319	Nursing Administration
051	Boat Building	325	Mining and Metallurgy
052	Police Training	327	Radar Communication
054	Electronics	328	Gas Fitter
055	Building Construction	329	Forms Design & Blueprint
056	Mechanical Drawing	000	Reading
060	Stationary Engineer	330	Automotive Parts
061	Furnace Maintenance	331	Navigation (ship)
064	Telecommunications	340	Painting and Graphic Arts
065	Aircraft Maintenance	345	Storeman (Material Management)
	(mechanic)	350	Legal Surveying

068	Sawmill Operations	353	Industrial Safety
072	Welding	355	Business Law
073	Lab Technician	358	Mine Rescue
074	Photography	362	Air Traffic Regulations
075	Office Management	370	Geology (not university)
077	Legal Administration (J.	P.)	
078	Millwright		
080	Electrical Mechanics		

Source: DIAND Northern Manpower Survey.

^{*} n.e.s. - not elsewhere specified.

lower level skill classes of labour. Examination of the levels of training makes it clear that it will be difficult, at least initially to place large numbers of the local native residents, let alone those who live further from the pipeline route.

The general picture is not improved by examination of Table 3 which summarizes the numbers of those natives in the corridor and throughout the N.W.T. holding trade or journeyman's certificates. From the detailed picture presented in Appendix 2, it is evident that within the pipeline corridor area, there is a definite shortage of qualified, licensed tradesmen among the N.W.T. native population.

It should be remembered that the figures presented in the education summary and the training summary are, like much of the information on population and labour force contained in Volume 6, based on the manpower survey and cover a period over 1969-70. Increasing numbers of young native persons are leaving the school systems and training centers all the time, the majority with higher qualifications than those possessed by the present basic native work force. However, as spelled out clearly in Volume 2 and Volume 6, training and also experience requirements for most of the directly related pipeline work will be high. Therefore, the question to be answered is whether sufficient people can be found within the native population with the relevant background and training who might also be directed to some means of achieving the requisite experience levels before pipeline construction actually begins.

SUMMARY INVENTORY OF NUMBERS OF PERSONS IN THE NORTHWEST TERRITORIES BY ETHNIC ORIGIN WHO HAVE TAKEN PIPELINE-RELATED TRAINING $^{\perp}$

2

Table

Total N.W.T. Native Non-Native 3/	47 2 100 41 41 164 33 320 8 3 7 4 12 77 13 40 17 77 13 40 17 77 18 21 19 21 2 40 47 130 7 7 7 7 10 21 10 21 10 21 10 21 10 21 10 21 11 46 12 10 2 33 6 3 8 11 8 11 8 11 9 46 11 2 12 10 13 46 14 46 15 8 16 10 17 46 18 11 19 80 11 80
Rest of N.W.T. 2/	46 22 22 24 4 7 11 13 6 6 10 0 11 0 11 0 0 0 11 0 0 0 0 11 0
Total Mac- kenzie District Native Non-Native	1 48 41 19 164 28 320 3 3 4 47 3 18 47 21 2 9 3 77 8 10 40 36 130 1 1 2 3 130 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Remainder of nzie District Non-Native	16 36 18 36 19 122 3 256 3 2 4 4 8 64 1 13 1 13 1 13 1 2 4 25 4 25 4 25 4 25 4 25 1 2 1 2 1 4 1 3 1 3 1 3 1 4 1 1 2 2 3 83 1 1 1 2 1 4 1 1 2 2 3 83 1 1 1 2 2 2 3 83 1 3 1 4 1 0 2 2 3 8 3 8 3 8 3 8 3 8 3 8 3 8 4 2 5 2 6 6 6 7 7 0 0 0 5 2 1 4 6 6 7 2 8 3 1 1 1 2 1 4 1 2 2 2 3 8 3 8 3 8 3 8 3 8 3 8 3 8 3 8
Total Total Total Macke Non-Native Native	64 64 64 13 13 13 13 14 15 15 17 17 17 18 18 10 10 11 10 10 10 10 10 10 10 10 10 10
Code Pipeline No. Native	005 006 008 008 008 008 012 012 013 014 020 021 021 022 023 024 025 027 11 028 11 028 031 033 040 040 040 040 040 040 040

Code numbers refer to courses listed in Table 1, above, p. 2 - 10. 1

Information from DIAND Northern Manpower Surveys, information not available for non-natives. 7

Information on non-natives pertains only to those covered by the D.I.A.N.D. Mackenzie Manpower Survey, which provided sample coverage of only 41 per cent of the total non-native population of the Mackenzie Impact 3/

Total N.W.T. Native Non-Native	2 4		7 85			2 24	10 2		0 23	1 0			6 0							1 15							1 10	7 248	66 0	
Rest of N.W.T.	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Mac- zie District ive Non-Native	7 0	27	85	∞	3	24	2	72	23	0	58	16	6	70	0	2	14	92	-1	15	9	œ	2	1	5	5	10	248	66	89
rota kenzie	2	0	7	3	0	2	10	11	0	1	17	0	0	2	1	0	0	00	Н	П	2	0	Н	H	0	Н	Н	7	0	0
Total Remainder of Mackenzie District	НС	20	52	5	2	11	0	42	17	0	45	13	9	59	0	2	œ	54	0	13	9	9	2	Н	5	5	∞	191	75	61
Total Remainder Mackenzie Distri Native Non-Nati	0	10	m	Н	0		7	_	0	0	11	0	0	2	Н	0	0	2	1	Н	2	0	1	Н	0	0	Н	2	0	0
Total Pipeline Corridor Native Non-Native	m 0		33																									57		
Pipeli: Native	2 10	0	7	2	0	·	9 ,	4 (0	1	9	0	0	0	0	0	0	(4)	0	0		0	0	0	0	1	0	7	0	5

Code
No.

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054
0554
0554
0655
0664
0677
077
078
088
080
081
088
089
090
090
090
1002

Table 2 (cont'd)

Total N.W.T. Native Non-Native	221 1 288 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2,65
Rest of N.W.T.	000010000000000000000000000000000000000	307
rotal Mackenzie District Native Non-Native	221 221 228 200 000 000 000 000 000 000	0 2 385 2,656
Total Remainder of Mackenzie District Non-Native Na	137 0 26 1 18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1,95
Total Total Ma Pipeline Corridor Ma Native Non-Native Na	10000000000000000000000000000000000000	0 0 194 700

Code
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105
1107
1118
1119
1120
1121
1129
1133
1139
1140
124
129
1339
1340
1411
202
204
208
315
319
325
327
328
315
328
325
336
331
346
345
353
353
353
353

NUMBER OF PERSONS BY ETHNIC ORIGIN IN THE NORTHWEST TERRITORIES WHO HOLD TRADE AND JOURNEYMEN'S CERTIFICATES 1/

Carner

Total	18	12 164	21	51 423 474	9 (1	7 7	$71\frac{3}{423}$
Certif. Not Specified	8 24	333	2 2 2 4 4	8 81 89	ı	I	8 81 89
Other Certificate	m ∞	1 14	396	10 61 71	ı	1	10 61 71
Trades Certificate	39	1 57	3 21	11 117 128	2	Н	14 117 131
Journeymen's Certificate (Territories)	4 31	34	29	15 94 109	m	I	18 94 112
Trademen's Qualification Certificate (Provinces)	1 15		4 29	7 70 77	1	-1	9 70 79
	Total Pipeline Corridor Native Non-Native	Yellowknife (and Village) Native Non-Native	Rest of District Native Non-Native	Total Mackenzie District Native Non-Native Total	Reewatin Region $\frac{2}{2}$	Arctic Coast Region $\frac{2}{}$	Total N.W.T. Native Non-Native Total

Eskimos only. Includes 12 persons in Baffin Region for whom no breakdown by certificate is available.

Males only.

Source: DIAND Northern Manpower Survey Program, Table 12.

Lead Time

It must be assumed, however, that numbers of native residents will be attracted to the high wage levels of pipeline work 1. At even the lowest order of job classification, most pipeline work will in general pay far better wages than those offered by government and private enterprise. Nevertheless, the desire on the part of native residents to have pipeline construction work will not be sufficient qualification for the majority of the pipeline jobs available to them. Local labour must be able to perform the work required on pipeline construction, through having either related work experience or suitable training.

Training persons for specific jobs does not present insurmountable problems once the job specifications are known. However, the organization and timing of job training activities is extremely difficult to plan until information is available on the time parameters of the particular project. At the present time, government authorities are faced with the serious problem of estimating the types of training programs which should be initiated. This problem is compounded by lack of a definite timetable for commencement of pipeline construction, so that appropriate scheduling of training activities is not yet possible.

Many different skills, and many different levels of particular skills are required. While some skills may be taught relatively quickly in short, intensive training programs, other skill training requires longer periods of instruction supplemented by job experience. Still other skills require maximum on-the-job training with a minimum of formal classroom instruction. If intensive training courses are begun at once, but pipeline construction is delayed for some time, even years, the training efforts will be wasted, since those who have been trained will be unable to find jobs in which to use their new skills. On the other hand, if pipeline construction activity begins quite soon, there will not be sufficient time to organize the appropriate courses, select candidates and train them in sufficient numbers in time to place many persons on pipeline work. While the foregoing reflects the two extremes of the basic problem, they must nevertheless be kept under consideration while policies for involvement of territorial residents in pipeline work are being formulated.

It will be difficult at the outset of pipeline construction to fill a large quota of territorial residents, particularly native residents. From the labour supply-demand assessment in Chapter 3, it can be assumed that a number of native residents from communities adjacent to the pipeline route would qualify for jobs during the initial stages of pipeline construction. These workers would qualify largely on the basis of work experience which they already possess.

^{1/} See Volume 7.

Other local residents will obtain jobs for which they may qualify through receiving on-the-job training; these persons will move gradually to higher skill levels, and, in time, will be joined by those persons who have undergone formal training. On the basis of current estimates for timing of construction, it is assumed that within a two-year period, the numbers of qualified local residents working on the pipeline, as well as territorial residents from elsewhere in the N.W.T., should increase.



CHAPTER 3

TOTAL PIPELINE LABOUR REQUIREMENTS

Direct Pipeline Activities

An elementary summary of direct pipeline activities in terms of construction would be: right-of-way-clearing, access road building, camp construction, pipeline building, compressor station construction. All these, plus the associated transportation and supply support will require labour. Table 4 summarizes the total numbers of jobs likely to be associated with pipeline construction and later maintenance, grouped by major function and time period.

General Skill Classes

To assist in better assessing the labour demand-supply for pipeline construction as related to potential employment of northern residents, occupational skill groups or classes have been developed which are presented in Table 5. 1/ These classifications may be considered as applicable to all aspects of construction and operation and maintenance of pipelines within the northern territories.

One difficulty experienced in attempting to classify jobs on the basis of existing occupational definitions, such as those used for the D.I.A.N.D. Northern Manpower Survey Program (standard definitions used by Statistics Canada) is to determine precisely what level of skill is required. For example, there are as many types of "heavy equipment operators" as there are types of heavy equipment. Therefore, difficulties may arise in attempting to determine whether a man who can operate a caterpillar tractor or a fork lift or related equipment will have the experience and finesse necessary to operate a side-boom tractor on a pipeline construction project.

Definition of Occupations Within Skill Classes 2/

From information obtained concerning pipeline construction jobs, the skill classes are broken down according to specific occupations, as closely as could be determined. To the individual skills or occupational classifications, the relevant occupation code numbers as used by the D.I.A.N.D. Manpower Survey Program were assigned. These

^{1/} Volume 2, Part 2.

^{2/} Information in this and subsequent sections dealing with labour demand derived from Volume 2, except where specified otherwise.

Table 4

BASE CASE MACKENZIE GAS PIPELINE ESTIMATE OF ANNUAL NUMBER OF JOBS BY MAJOR FUNCTION 1/

Period and Time Major Function	Period of Major Pipe Construction (Mid Yr 2 - Mid Yr 5) (Approx 3 yrs)	Post Pipe Compressor And Facility Const. (Mid yr 5 - Yr 9) (Approx 4½ yrs)	Post Construction Capacity Operation (After Yr 9) (Indefinite)						
Pipeline Constru	uction								
Maximum	5,446	-	***						
Intermediate	4,735	MANA	-						
Minimum	4,025	-	-						
Compressor and	Operating Facility Cor	nstruction							
	024	487	**						
Maximum	834	423							
Intermediate	725	360	0						
Minimum	616	300	•						
Off-Site Transport & Handling For Pipe Construction									
Maximum	356	_	-						
Intermediate	310	-	-						
Minimum	264	_	-						
	ort for Compressor & 1	Maintenance							
Facility Constr	uction	TIGETI COLONIA							
raciffey compet									
Maximum	_	56	_						
Intermediate	_	49	tive						
Minimum	-	42	-						
Catering and Ca	amp Operation								
Maximum	883	7 5	_						
Intermediate	768	65	-						
Minimum.	653	55	-						
FITHTHOM	0.50								
Operation and N	Maintenance Staff								
Maximum	_	121	226						
Maximum Intermediate		105	197						
Minimum	_	89	168						
MITHITMAN									

^{1/} Maximum and minimum 15 per cent of intermediate. Jobs in any function extend beyond period shown but at reduced levels.

Source: "Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories", background paper, M.P.S. Associates and Unies Limited, May, 1972.

Table 5

DEFINITION OF GENERAL SKILL CLASSES FOR PIPELINE CONSTRUCTION AND OPERATION IN THE MACKENZIE VALLEY, N.W.T.

Class I Skilled pipeline workers with experience and/or qualifications which usually can only be provided by direct on-the-job training in pipeline work.

Labour in this classification is in short supply and thus has a high income capability.

Class II

Labour in this classification is comprised essentially of skilled construction-oriented labour with highly developed skills which are not necessarily related specifically to pipeline construction. Experience or intensive training either prior to pipeline construction or on-the-job training would be required. Such labour is more readily available than Class I but at relatively high wage levels.

Class III Labour in this classification is defined as having some clerical or light equipment handling experience. On-the-job or pre-training may be required for certain aspects of pipeline work.

Class IV Labour in this classification is defined as having little or no previous experience related to service, construction or transportation functions.

Source: "Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories", background paper, M.P.S. Associates and Unies Limited, May, 1972. were then placed within the appropriate skill classes presented in Table 6. Many of the occupations given within the manpower survey were just sufficiently different as to function, even though having the same general name, to require detailed specification, and thus separate codes — i.e., a job listed simply as "driver" was not regarded as exact, therefore, codes for truck drivers, bus drivers, etc. were used. For purposes of simplicity, however, the impact study compressed the large numbers of occupations shown in Table 6 into more general skills, with assigned numbers (Table 7).

Total Job Requirements for Pipeline Construction, Post-Construction

There are many inherent problems in forecasting types and numbers of jobs likely to be associated with pipeline construction, operation and ancillary activities. Throughout the impact study, efforts have been made to present job or labour estimates in terms of high, low and intermediate figures. Throughout most of the tabulations in the following sections on labour demand, therefore, figures within the tables are based on the intermediate estimate; the maximum and minimum figures are given in footnotes.

Table 8 presents the estimate of total numbers of jobs by occupation likely to be available or required annually throughout the period of construction and also for immediate post-construction operation. These jobs are then summarized according to skill class groups in Table 9. Appendices 3 through 11 contain a detailed occupation break-down of these jobs according to specific phases of construction and operation periods.

The various phases of the total program, as given in Table 10 and Appendices 3 through 11, may be described as follows: $\frac{1}{2}$

"Pipeline Construction" provides an estimate of labour skills required for on-site construction activity including survey, R.O.W. $\frac{2}{}$ clearing, pipe stringing, laying and clean-up.

"Compressor Station and Operating Facilities Construction" provides an estimate of labour skills required to construct compressor facilities, district and division offices.

"Off-site Transportation and Handling For Pipeline Construction" provides an estimate of labour skills required for transporting pipe and materials within the northern territories including handling at stockpile locations.

"Off-site Transportation for Compressor Operation and Maintenance Facility Construction" provides an estimate of labour

^{1/} Volume 2, Part 2.

^{2/} Right-of-way.

Table 6

CODE NUMBERS FOR THOSE OCCUPATIONS DEFINED AS THE ONES MOST DIRECTLY RELATED TO PIPELINE CONSTRUCTION, OPERATION AND MAINTENANCE

Skill Class I

006	Office Managers	214*	Shipping & Receiving
101	Civil Engineers		Clerks
102	Mechanical Engineers	221*	Baggagemen & Expressmen,
104	Industrial Engineers		Transport
105	Electrical Engineers	232*	Stenographers
153	Lawyers, Notaries	413	Cooks
563*	Teamsters	459	
817*	Welders, flame cutters		Service Workers, n.e.s.
851*	Foremen, general	510 520	Inspectors and foremen
031	construction	520	Airpilots, navigators
876*		= 1.0	and flight engineers
0/0^	Operators of earth-	548	Pilot, ship
	moving equip. & other	556*	Truck Drivers
	construction mach. n.e.s.	557*	Drivers, n.e.s.
		(563)	Teamsters
Skill	Class II	702	Bakers
		7 51	Carpenters
800	Purchasing Agents, Buyers	805	Millwrights
011	Contractors, Building	806	Fitters and Assemblers,
012	Contractors, Services		n.e.s., metal
013	Contractors, Heavy Equip.	808	Metalworking machine
109	Professional Engineers,		operators, n.e.s.
	n.e.s.	810	Plumbers and Pipefitters
112	Geologists	811	Sheetmetal workers
121	Biological Scientists	813	Boilermakers, platers and
149	Other Health		structural steel workers
	Professionals	(817)	Welders & flame cutters
182*	Draughtsman	821	Mechanics and repairmen,
183	Surveyors	0 = =	aircraft
188	Accountants & Auditors	822	Mechanics and repairmen,
196	Photographers	022	motor vehicle
198	Science & Engineering	824*	Mechanics and repairmen,
	Technicians, n.e.s.	024	office machine
199	Professional Occupations,	831	Electricians and
200	n.e.s.	0.01	electrical repairmen
212*	Store Clerk, Store	833	Power station operator
L. L. L.	· ·	835	-
	Keepers	022	Mechanics and repairmen,
			radio & T.V.

- 1/ Standard occupational classification as used by D.B.S. (Statistics Canada) and in the DIAND N.W.T. Manpower Survey Program.
- * Occupation required in one or more of the following groups.
- () Occupation required in previous skill group(s).

Table 6 (cont'd)

838	Linemen and servicemen,	611	
	telephone, telegraph &	615*	Lumbermen, incl.
	power		labourers in logging
839	Electrical and electronics	760	
	workers, n.e.s.		Plumbers, apprentice
(851)	General foremen-	823	A A
	construction		motor vehicle
	Inspectors-construction	(824)	Mechanics and repairmen,
855*	Cement & concrete		office machine
	finishers	827	Apprentice diesel mechanic
872	Stationary enginemen	828	Skidoo and outboard
874	Hoistmen, cranemen,		motor repairmen
	derrickmen	(851)	General foremen,
875	Riggers and cable splicers		construction
	(except telephone, telegraph,	(852)	Inspectors, construction
	hydro)	(855)	Cement & concrete finishers
(876)	Operators of earth moving and	859*	Construction workers, n.e.s.
	other const. machinery, n.e.s.	(876)	Operators of earth-moving
877*	Materials handling		and other const. mach. n.e.s.
	operators	(877)	Materials handling
900*	Foremen, n.e.s.		equipment operators
928*	Labourer, construction	878*	Oilers and greasers,
			machinery & vehicles
Skill	Class III		(except ship)
		881*	Longshoremen and freight
009	Administrative Officer		handlers
014	Admin. Officer Trainee	882*	Warehousemen and freight
(182)	Draughtsmen		handlers
201		(900)	Foremen, n.e.s.
203	Office Appliance operator		Labourer, general work,
	Stock clerks, store-		n.e.s.
	keepers	921	Carpenter's helper
(214)	Shipping & receiving	922	
(,	clerks	923	
(221)	Baggagemen and express-	924	-
(/	men, transport		Cook's helper
(232)	Stenographers		Labourer, road building,
234	Typists and Clerk-typists		maintenance
249	Clerical Occupations n.e.s.	(928)	Labourer, construction
405	Guards - Watchmen n.e.s.		Driver's helper
415	Waiters	930	
	Service Workers, n.e.s.	931	
551	Bus Drivers	932	· · · · · · · · · · · · · · · · · · ·
	Truck Drivers	, , ,	
	Drivers, n.e.s.		
569*	Transport occupations,		
500	Total por a coop account,		

n.e.s.

Table 6 (cont'd)

Skill Class IV

(459)	Service workers, n.e.s.
(569)	Transport occupations n.e.s
(615)	Lumbermen, incl. labourers
	in logging
(815)	General foremen -
, ,	construction
(859)	Construction workers, n.e.s
(878)	Oilers and greasers -
, ,	machinery & vehicles
	(except ship)
879	Pumping gas, aircraft
(881)	Longshoremen & stevedores
	Warehousemen and freight
	handlers
(900)	Foremen, n.e.s.
(920)	Labourer, general work
	not specified
(925)	Cook's helper
(926)	Labourer, road building,
(/	maintenance
(928)	
(929)	Driver's helper
()/	Private o Herber

Table 7

MASTER LIST OF THE OCCUPATIONAL GROUPS FOR THE BASE CASE MACKENZIE GAS PIPELINE

Pipeline Study Code No.	Occupation Name	Mackenzie Survey Occupation Code 1/
1 2 3 4	Accountant Administrative Trainee Carpenter Carpenter's Apprentice	234 009, 014, 212, 214 751, 930 760, 921
5 6	Clerical Cooks	249 413, 702
7 8	Cook's Helper Drivers (Truck & Bus)	419, 459, 925 551, 556
9 10	Electricians Electrician's Helper	831, 839 922
11 12	Engineers (Prof.) Foremen	102, 109, 199 851, 900, 611, 510
13 14	Inspectors Labour (Camp)	852 405, 454, 459, 760, 920, 921, 927, 930, 931
15	Labour (Operation and Maintenance)	920, 926, 928
16	Labour (Pipelaying and Compressor)	615, 855, 859, 920, 926, 928
17	Labour (Warehousing and Tug)	545, 547, 881, 882, 920
18	Mechanics Mechanic's Helpers	881, 882 823, 827, 924
19 20	Millwright	805, 806, 808, 810, 811, 813 878
21 22 23	Oilers Office Managers Office Assistants	006, 010, 188 201, 203, 212, 214, 232, 249, 405
24 25	Other Trades Plumber's Apprentice	810, 830, 831, 838, 859 820, 923
26 27	Principal Operators Purchasing Agent	520, 541, 874, 876, 877 008
28 29 30	Safety Staff Superintendents Superintendent's Asst.	104, 143, 149 010, 109, 851 851
31 32	Surveyor's Assistant	183, 198 182, 198, 852
33 34 35	Technicians Warehousing Welders	182, 198, 852 882 817
36	Welders Helpers	920, 928

Source: "Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories", background paper.
M.P.S. Associates and Unies Limited, May, 1972.

 $\underline{1}/$ Note that certain occupations as shown by Manpower Survey codes are duplicated in those definitions of pipeline skills.

Table 8

ESTIMATE OF THE TOTAL NUMBER OF ANNUAL JOBS BY OCCUPATION AND ACTIVITY PERIOD FOR THE BASE CASE MACKENZIE GAS PIPELINE

Pipeline Study Code No.	Occupation Name	Period of Pipe Construction	Post Pipe Compressor/ Facility	
		(3 years)	$(4\frac{1}{2} \text{ years})$	(Indefinite)
1	Accountant	4	_	-
2	Administ. Trainee	72	5	-
3	Carpenter	116	37	7
4	Carpenter Apprentice	47	28	-
5	Clerical	16	9	err
6	Cook	77	6	-
7	Cook's Helper	215	18	_
8	Driver (Truck & Bus)	705	6	7
9	Electrician	47	27	-
10	Electrician Apprentice	47	28	_
11	Engineer (Prof.)	32	10	9
12	Foreman	181	17	9
13	Inspector	31	18	***
14	Labour (Camp)	253	21	-
15	Labour (Operation and Maintenance)	-	13	25
16	Labour (Pipelaying and Compressor)	1,302	97	-
17	Labour (Warehouse and Tug)	114	34	-
18	Mechanic	134	7	13
19	Mechanic's Helper	148	-	
20	Millwright	127	7 5	-
21	Oilers	147	-	-
22	Office Manager	70	14	4
23	Office Assistant	63	13	17
24	Other Trade	31	18	29
25	Plumber's Apprentice	47	28	_
26	Principal Operator	919	44	14
27	Purchasing Agent	25	10	2
28	Safety Staff	19	-	-
29	Superintendent	28		-
30	Superintendent's Asst	. 14	-	-
31	Surveyor	24		-
32	Surveyor's Assistant	62	_	-
33	Technician	74	43	48
34	Warehouseman	30	10	2
35	Welder	630	6	11
36	Welder's Helper	687	-	-

Source: "Evaluation of Occupational Classification and Direct Labour Requirements in Northern Territories", background paper, M.P.S. Associates and Unies Limited, May, 1972.

Table 9

ESTIMATE OF THE TOTAL NUMBER OF ANNUAL JOBS BY TOTAL WITHIN EACH SKILL CLASS FOR THE BASE CASE MACKENZIE GAS PIPELINE

	Period of Pipe Construction (3 years)	Post Pipe Compressor/ Facility (4½ years)	Post Construction Operation (Indefinite)
Skill Class I	1,339	78	36
Skill Class II	2,204	345	116
Skill Class III	1,926	155	35
Skill Class IV	1,069	64	10
		en-elección pa	-
TOTAL	6,538	642	197

Source: "Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories", background paper, M.P.S. Associates and Unies Limited, May, 1972.

Table 10

SUMMARY OF TOTAL JOB REQUIREMENTS FOR EACH SPECIFIC PHASE OF PIPELINE CONSTRUCTION AND OPERATION

Jobs	Total Jobs 1/	Total Jo	obs by S	kill Clas	IV IV
Pipeline Construction- Major Period	4,735	1,235	1,340	1,397	763
Compressor Stations & Facility Construction - Major Period	725	100	436	151	38
Compressor Station & Facility Construction - Post Period	423	59	251	91	22
Off-Site Transportation and Handling - Major Period	310 ² /	-	144	95	71
Off-Site Transportation - Post Period	49	-	8	21	20
Catering and Camp Oper- ating - Major Period	768	4	284	283	197
Catering and Camp Oper- ating - Post Period	65	1	25	23	16
Operation and Mainten- ance Staff - Post Period	105	18	61	20	6
Operation and Mainten- ance Staff: Permanent Jobs - Post Period	197	36	116	35	10
TOTAL	7,377	1,453	2,665	2,116	1,143

¹/ Based on Intermediate estimates - see Appendices 3 - 11.

Source: "Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories", background paper, M.P.S. Associates and Unies Limited, May, 1972.

^{2/} Includes 106 jobs in Yukon Territory.

skills required for transporting equipment, materials and supplies within the northern territories as required to place it "at site".

"Catering and Camp Operation" provides an estimate of labour skills required for the operation of construction camps which would be established and be the "home" of pipeline labour throughout the period of pipeline and compressor construction activity.

"Continuing Operation and Maintenance" provides an estimate of labour skills required at division and district offices located within the northern territories for operating and maintaining the pipeline after its completion.

For construction work alone, these estimates call for a total labour in-put of over 6,500 jobs. The material in Chapter 3 has been presented in terms of total jobs associated with pipeline construction, operation. The next important point to determine is to what extent these jobs can or might be filled by northern residents, especially native residents.



CHAPTER 4

JOBS AVAILABLE TO NORTHERN RESIDENTS

Basic Assumptions

It has been assumed that only a proportion of total pipeline jobs - construction and operation - would be open to northern residents. "Open" in this sense is defined as jobs of which they are capable of taking. Pipeline work has many difficult and highly specialized and technical facets which require competent, technically qualified workers to handle. To make unrealistic demands on the industry by insisting that large numbers of native workers be fitted into pipeline work from the outset could be prejudicial to these workers' chances of success. Leaving aside such aspects as the degree of their own inclinations and motivation, excessive demands on the native workers could be harmful to them in many respects. Rather than speak in terms of blanket quotas, a more realistic approach would be one through which every effort was made to place as many native residents as possible in jobs which are within their capabilities. This approach, together with the principle of first refusal, would probably ensure that increasing numbers of native workers are given the opportunity both to obtain work and to obtain increasingly higher levels of training and work experience.

Therefore, rather than assess labour demand and supply in terms of total job requirements, the total jobs have been assessed $\frac{1}{2}$ according to those which might be open to native residents. $\frac{2}{2}$

Jobs by Occupation and Skill Available to Local Residents

It has been assumed that a proportion of jobs within each skill class would be potentially open to territorial residents. 3/ On the basis of the requirements for training and experience for jobs in each skill class (Table 5, Chapter 3), the percentage of jobs within each skill class available to territorial residents are:

 $[\]underline{1}$ / Source - Volume 2 and related background material.

^{2/} Although job demand is presented in terms of territorial residents throughout most of the impact study, in Volume 6, concentration is on the native population since it may be safely assumed that the majority of government efforts will be concentrated on maximizing native involvement on pipeline construction and postconstruction activities.

^{3/} Residents would include Indian, Eskimo and Métis persons and those non-natives already resident in the Territory. Speculative transients, those who come North specifically to seek pipeline work, would not be defined as residents.

Skill Class I - 0 per cent
Skill Class II - 10 per cent
Skill Class III - 100 per cent
Skill Class IV - 100 per cent

These must be regarded as the maximum potential involvement only.

The total number of jobs defined as above are listed by major function in Table 11. In the actual pipeline construction phase, for which northern resident-potential jobs comprise 48 per cent of the total, it might be safe to assume that over a three-year period, sufficient numbers of territorial residents, particularly native residents, would become qualified to participate to this extent. Detailed breakdowns according to territorial resident participation in each separate phase are presented in Appendices 12 through 20, summarized in Table 12.

The number of jobs which might be available to territorial residents are listed in Table 13, by occupation and phase or activity period. Table 14 summarizes this information by skill class.

It is estimated that approximately 3,200 jobs are available to territorial residents for the period of pipeline construction, just under 50 per cent of estimated total number of jobs for this phase. For the succeeding phases, the numbers of jobs potentially open to territorial residents decrease significantly, to 39 per cent for the post-pipeline/compressor facility stage, and to 28 per cent for post-construction operations phase.

The activity or phase of most direct immediate concern to planners at the present time is, of course, the construction phase. Pre-construction activities, i.e., transportation of material and supplies, preparation of sites for camps, clearing, will require large labour in-puts which could be supplied locally without a great deal of advance preparation, or initiation of special courses. 1/ The skill inventory of the local territorial resident work force (assessed in detail in the following chapter), both native and non-native, will be adequate for the bulk of the pre-construction work. Much of the work will require experience which workers have already gained. A great deal of the work will be general labour, suited to on-the-job training.

^{1/} Planning of methods of recruitment and deployment of workers to work sites will require careful attention, as will establishment of methods for ensuring that recruitment notices are properly circulated, that territorial residents are receiving the right of first refusal planned by the government as a requirement of industry, contractors, etc.

Table 11

ESTIMATE OF POTENTIAL JOBS BY MAJOR FUNCTION AVAILABLE TO TERRITORIAL RESIDENTS FOR THE BASE CASE MACKENZIE GAS PIPELINE

Time Ma		Post Pipe pressor and ility Const.	Post Construction Capacity Operation				
	yr 2-Mid yr 5) (M prox 3 yrs) (A		(After year 9) (Indefinite)				
Pipeline Constru	ction						
$\begin{array}{c} {\tt Maximum}^{\underline{1}/} \\ {\tt Intermediate} \\ {\tt Minimum} \end{array}$	2,638 2,294 (48%) ² / 1,950	-	- - -				
Compressor and Operating Facility Construction							
Maximum Intermediate Minimum	267 232 (32%) 198	159 138 (32%) 118	- - -				
Off-Site Transport & Handling for Pipe Construction							
Maximum Intermediate Minimum	207 180 (58%) 153	- - -	-				
Off-Site Transpor	rt for Compressor	& Maintenance					
Maximum Intermediate Minimum	- - -	48 42 (86%) 36	-				
Catering and Camp Operation							
Maximum Intermediate Minimum	584 508 432	47 41 (63%) 35	-				
Operation and Ma	intenance Staff						
Maximum Intermediate Minimum		37 32 (30%) 27	64 56 48				

 $[\]underline{1}/$ Maximum and Minimum 15 per cent of Intermediate. Jobs in any function extend beyond period shown but at reduced levels.

Source: "Evaluation of Occupation Classifications and Direct Labour Requirements in Northern Territories", background paper, M.P.S. Associates and Unies Limited, May, 1972.

^{2/} Per cent of total jobs as shown in Table 4, Chapter 3, above

Table 12

SUMMARY OF JOBS ESTIMATED AS AVAILABLE TO TERRITORIAL RESIDENTS FOR EACH SPECIFIC PHASE OF PIPELINE CONSTRUCTION AND OPERATION

			Total	al Jobs	by Sk	Skill Cla	SS			
	Total ₁ /Jobs	Per Cent of Total 2/	No	Per 2/ Cent 2/	I I No.	Per 2/ Cent2/	III No.	Per 2/ Cent2/	No.	Per2/ Cent2/
Pipeline Construction - Major Period	2,294	48.4	1	ı	134	10.0	1,397	100.0	763	100.0
Compressor Stations & Facility Construction - Major Period	232	32.0	t	ı	43	6.6	151	100.0	38	100.0
Compressor Stations & Facility Construction - Post Period	138	32.6	1	I	25	10.0	91	100.0	2 2	100.0
Off-site Transportation and Handling - Major Period	180	58.1	ı	1	14	7.6	95	100.0	71	100.0
Off-site Transportation - Post Period	4 2	85.7	1	1	Н	12.7	21	100.0	20	100.0
Catering and Camp Operating - Major Period	2008	66.1	1	1	2 8	6.6	283	100.0	197	100.0
Catering and Camp Operating - Post Period	7 7	63.1	ı	ŀ	2	0 . 8	23	100.0	16	100.0
Operation and Maintenance Staff - Pos Period	st 32	30.5	1	1	9	8.	20	100.0	9	100.0
pera	56	28.4	1	§ 1	11	9.5	35	100.0	10	100.0
Total	3,523	47.8	1	1	264	6.6	2,116	100.0	1143	100.0

Based on Intermediate Estimates
Percentage of total jobs in same class given in Table 10, Chapter 3, above.
rce: "Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories;
background paper, M.P.S. Associates and Unies Limited, May 1972. 1/ Based 2/ Perce Source:

Table 13

ESTIMATE OF POTENTIAL ANNUAL JOBS AVAILABLE TO TERRITORIAL RESIDENTS BY
OCCUPATION AND ACTIVITY PERIOD FOR THE BASE CASE MACKENZIE PIPELINE

		Period	PerCent 1	Post Pipe	PerCen	t Post	PerCent
		of Pipe	of	Compressor/	of	Constr.	of
No.	Occupation Name	Constr.	Total	Facility		Operatio	
-							
1	Accountant	3	75.0	-	_	-	
2	Admin. Trainee	26	36.1				
3	Carpenter	46	39.7	11	29.7	2	28.6
4	Carpenter Apprentice		40.4	12	42.9		
5	Clerical	4	25.0	3	33.3		
6	Cook	18	23.7	2	33.3		
7	Cooks Helper	187	87.0	15	83.3		
8	Driver (Truck & Bus)	356	50.5	2	33.3	6	85.7
9	Electrician	3	6.3	2	7.4		031,
10	Electrician Apprent.	. 19	40.4	12	42.9		
11	Engineer (Prof.)	1	3.1				
12	Foreman	29	16.0	2	11.8	2	22.2
13	Inspector	4	12.9	2	11.1	_	000 and 0 and
14	Labour (Camp)	219	86.8	18	5.7		
15	Labour (Operation			4	30.8	2 2	88.0
	and Maintenance)						00.0
16		1,151	88.4	69	71.1		
	Compressor)	,			, , , ,		
17	Labour (Warehouse -	114	100.0	34	100.0		
	Tug)				200.0		
18	Mechanic	8	6.0			2	15.4
19	Mechanic's Helper	111	75.0			2	13.7
20	Millwright	16	12.6	9	12.0		
21	Oilers	102	69.4		12.0		
22	Office Manager	6	8.6	1	7.1		
23	Office Assistant	26	41.3	6	46.2	7	41.2
24	Other Trade	13	41.9	18	100.0	7	24.1
25	Plumber's Apprentice		40.4	12	42.9	,	24.I
26	Principal Operator	132	14.4	10	22.7	3	21.4
27	Purchasing Agent	1	4.0	10	2201	3	21.4
28	Safety Staff	1	5.3				
29	Superintendent	1	3.6				
30	Supt. Assistant	1	7.1				
31	Surveyor	2	8.3				
32	Surveyor's Assist.	48	77.4				
33	Technician	11		2	7 0	2	6.3
34	Warehouseman	4	4.9 3.3	3	7.0 30.0	3 1	50.0
35	Welder						
36	Welder's Helper	11 502	1.7	1	6.7	1	9.0
50	weider s neiper	302	73.1				
	Total					Annual Spirous	
	3	,214	49.2	251	39.4	56	28.4

1/ Total as shown in Table 8, Chapter 3, above.

Source: "Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories", background paper, M.P.S. Associates and Unies Limited, May. 1972.

Table 14

ESTIMATE OF THE TOTAL NUMBERS OF ANNUAL JOBS AVAILABLE TO TERRITORIAL RESIDENTS BY TOTAL JOBS IN EACH SKILL CLASS FOR THE BASE CASE MACKENZIE GAS PIPELINE

Skill Class	of	riod Pipe ruction	Compr	Post Pipe Compressor/ Facility		Post Construction Operation	
	Jobs	PerCent of Total	Jobs	PerCent of Total	Jobs	PerCent of Total	
I	_	-	-	-	-	-	
II	219	9.9	34	9.8	11	9.5	
III	1,926	100.0	155	100.0	35	100.0	
IV	1,069	100.0	64	100.0	10	100.0	
					-	-	
TOTAL	3,214	49.1	253	39.4	56	28.4	

Source: "Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories", background paper, M.P.S. Associates and Unies Limited, May, 1972.

^{1/} Total as shown in Table 9, Chapter 3, above.

The post-construction phases of the pipeline development program are sufficiently distant in time to allow an optimistic view to be taken of territorial (native) resident participation. The construction of the Mackenzie Highway, the pre-pipeline construction work, involvement in oil and gas exploration programs by many natives, the routine work always in progress in the communities according to the season (e.g., housing programs, brushing, fire-fighting) will provide work experience relevant to work required on much of the construction phase. The actual construction phase, estimated to be of long duration, should allow development to adequate levels of both direct job experience and training to allow numbers of northern residents to be employed in the post-construction phases.

The greatest potential obstacle to plans for incorporating large numbers of territorial residents, particularly native residents, may be that of a shortage of persons - regardless of qualifications. However, since one of the objectives of that of increasing the size of the permanent labour force and improving the quality of that labour force, it is important to examine it in order to identify the potential problems of unskilled labour.



CHAPTER 5

TERRITORIAL LABOUR SUPPLY BASE FOR PIPELINE ACTIVITIES

Demand

Part 2 of Volume 6 is concerned with the basic picture of the territorial labour supply as it relates to pipeline construction requirements, primarily in terms of quality rather than quantity. In Chapter 3, above, the estimated total labour requirements for pipeline construction are given, 1/ along with classifications of pipeline jobs according to training and/or work experience required.2/ In Chapter 4, the total estimated jobs are broken down according to those most likely to be available to or within reach of territorial residents.3/ At the peak of construction, an estimated total of 6,500 workers will be required, of which it is estimated that 3,500 could be territorial residents. The important questions to be answered in the near future are: 1) will there be enough territorial residents to fill all or a significant portion of the total number of jobs estimated as being open to them; 2) what proportion of the territorial experienced work force, and of the potential labour force, has the necessary relevant work experience or training to allow them to readily adapt to pipeline work. Chapter 5 is concerned with providing information in attempts to answer the latter question.

Basic Skill Inventory

Pipeline-related skills have been divided into classes according to the degree of formal education and training and directly related work experience required. The four skill classes are comprised of certain occupations of which there is a total of 93 separate occupations. On the basis of data obtained from the D.I.A.N.D. Northern Manpower Survey Program, those territorial residents having work experience relevant to estimated pipeline construction requirements have been grouped according to skill classes, as shown in Table 15.

Assessment of supply in relation to requirements is made difficult by the fact that many of the occupations listed in each skill class are repeated or duplicated in succeeding skill classes. That is, a number of the occupations listed in Skill Class I are also required in Skill Class II, III, occupations listed in Skill Class II are called for again in III, IV, and so on. On the assumption that all four skill classes will be required at the same time during the greater part of the pipeline construction phase, a far larger number of skilled workers will be needed than just the number

 $[\]underline{1}$ / Volume 6, Part 2, Chapter 3, Tables 4, 8.

<u>2</u>/ <u>Ibid</u>., Table 5.

<u>3</u>/ <u>Ibid</u>., Chapter 4, Tables 11, 13.

called for in the first skill class in which particular occupations are called for. In order to give a more accurate presentation of territorial labour supply, therefore, persons having relevant skills on the basis of work experience at the time of the manpower survey, are listed only in their particular occupation in the first skill class in which that occupation appears. That is, welders are called for in Skill Classes I and II. All those whose work experience or their most recent occupation1/ showed them as being welders were listed only in Skill Class I. Skill Class IV is composed entirely of skills classified under preceding classes. Thus, in Tables 15 and 16, which are concerned with supply, the numbers of workers available having work experience called for by Skill Class IV have been shown in brackets.

Some important points are apparent from the summary presented in Table 15. Both native and non-native representation is rather low for Skill Class I, the category for highly trained and experienced workers. Class I occupations of territorial residents, particularly the native residents, are predominantly those related to heavy equipment operation. The representation of native residents in each class increases in the latter groups, reaching a maximum in Skill Class III, which is largely made up of general labourers, drivers and in Skill Class IV which duplicates most of the general work occupations shown in Classes II and III.

Table 16 presents a summary for the N.W.T. on an individual occupation within skill class basis, from which the representation by occupation may be seen. Table 16 indicates: 1) non-natives represent only a tiny sample, since they were not covered in any other manpower survey except the Mackenzie, and there only on a small sample basis; 2) data for the "rest of the N.W.T." (natives only in the Keewatin, Baffin and Arctic Coast regions) are somewhat dated.2/ Nevertheless,

^{1/} The DIAND Manpower Survey obtained information on all types of work which people had done in the 12-month survey period, and on any other types of work (occupations different from those shown for the survey year) in the preceding seven years. For the survey period, "first" occupation was that which was either the most recent, or the type of work done for the longest period of time during the survey year.

^{2/} The Keewatin Survey covered mid-1968 to mid-1969; the Baffin and Arctic Coast Surveys both apply to calendar year 1969, while the Mackenzie Survey covered the period October 1, 1969 to September 30, 1970.

Table 15

SUMMARY INVENTORY OF NUMBERS OF PERSONS HAVING PIPELINE RELATED SKILLS BY SKILL CLASS, 11/ ETHNIC ORIGIN AND BY SETTLEMENT FOR MACKENZIE IMPACT CORRIDOR AND N.W.T.

	Clas	S	las	II	CJ	H	C1a	1-1	o ta	Ø
	Native	Non- Native	Native	Non- Native	Native	Non- Native	Native	Non- Native	I, II, Native	Non- Narive
Upper Mackenzie Region										4
Fort Simpson	ľ	0	10	α	25	10		(1)	0.4	2.0
) - I)	1) () =				\ + \		
u	ı	ı	7	-1		ŀ		ı		-
u	n	1	3	1	19	ı	5	ı	2.5	ı
Fort Wrigley	П	1	4	2		1		ı		2
Jean Marie River	Н	1		ı	c	ı	(12)	Î	5	ı
Nahanni Butte	ŀ	1	I	I	ı	1	ŀ	ı	1	1
Trout Lake	1	1	1	ı	ı	ı	ì	1	ı	1
Hay River	10	22	19	132	4 5	9.7	(40)	(26)	7.4	251
Total Region	20	24	3.9	143	107	107	(96)	(27)	166	274
Central Mackenzie Region										
Norman Wells	ł	2	ı	18	1	70	ı	(9)	ı	25
101	ı	1					-			
T C T + - T T T T T T T T T T T T T T T T T	!!		1 1) O	77	l c	(96)	(1)	37	
Cood Hon			1 4) -		n c	> <	(+)		
١	I	ı	0	-1		ο.	7 (ı		t -
Fort Norman	ŀ	1	0	ı		7	(18)	ı		4
Total Region	ı	2	26	2.7	76	1.5	(42)	(7)	102	77
Lower Mackenzie Region										
Inuvik	2	9		8 2		81				
Aklavik	5	ı	11		5 8	6	(97)	(2)	7.4	10
Arctic Red River	n	1		1		I	$\;\; \vdash \;\;$	ł		ı
Fort McPherson	П	Į	10	П		2		1		3
Tuktoyaktuk	7	I		ł		ı	\sim	1		I
Total Region	18	9	7.2	84	282	9.2	(207)	(24)	372	182
1/ Those defined in Volume	2, Pa	rt 2; Vol	ume 6.	Part 2. C	hapter	3. Table	s 5, 6,			

Inose deiined in Volume 2, Part 2; Volume 6, Part 2, Chapter 3, Tables 5, 6. rce: DIAND N.W.T. Manpower Survey Program; information for non-natives available on sample basis only for Mackenzie, not covered in rest of N.W.T. Source:

Table 15 (cont'd)

SUMMARY INVENTORY OF NUMBERS OF PERSONS HAVING PIPELINE RELATED SKILLS BY SKILL CLASS, 1/ETHNIC ORIGIN AND BY SEITLEMENT FOR MACKENZIE IMPACT CORRIDOR AND N.W.T.

	Class I	H (8)	Class II	II	Class III	- 1	Class IV	ΔI	Total	Total Classes
	Native	Non- Native	Native Non-	Non- Native	Native	Non- Native	Native	Non- Native	I, II, Native	III Non- Native
Lower Mackenzie Region (cont'd)	(p									
Total Impact Corridor	38	3.2	137	254	465	214	(382)	(28)	049	200
Yellowknife	9	67	3 8	453	61	424	(28)	(82)	102	926
Rest of Mackenzie	21	43	87	238	135	164	(112)	(32)	243	445
Total Mackenzie	6.2	124	262	945	661	802	(522)	(522) (175)	985 1,871	.,871
Rest of N.W.T.	4 2	N/Av	265	N/Av	1,236	N/Av	(1,168) N/Av 1,543	N/Av	1,543	N/Av
Total N.W.T.	104	124	527	945	1,897	802	(1,690) (175)2,528 1,871	(175)	2,528	1,871

9 Those defined in Volume 2, Part 2; Volume 6, Part 2, Chapter 3, Tables 5, 1/

DIAND N.W.T. Manpower Survey Program; information for non-natives available on smaple basis only for Mackenzie, not covered in rest of N.W.T. Source:

Table 16 NUMBER OF PERSONS WHO HAVE PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS $^{\perp}$ / BY ETHNIC ORIGIN IN MACKENZIE IMPACT CORRIDOR AND N.W.T.

Grand		004	9 1 19 14 166	228	13 13 22 4 4 5
Total N.W.T.	Non-Native	004	9 17 10 68	124	11 13 8 7 7 7 8 8 1 1 1 1 2 8 8 1 1 1 1 2 8 8 1 1 1 1
H ZI	Native		2 7 7 8 6 8 8	104	7 7
Rest of N.W.T.	Native 2/		42	42	
Total Mackenzie District	Non-Native	6 9 4	9 1 1 1 1 1 1 1 0 6 8 8	124	13 22 24 4 5
Total Dis	Native		2 4 5 2 6 4 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	62	7 7
Balance of Mackenzie District	Non-Native		7 7 7 3 8 3 8 3 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	43	н нара п
Bala	Native		2 2 17	21	
Yellowknife	Non-Native	2 4 4	9 8 13 13	6 7	. 133
Ye11	Native		m	3	
Total Mackenzie Impact Corridor	Non-Native	7 0	5 4 17	32	1 3 41
Total N Impact	Native		3 6	00	7 1
	Group I	066 101 102 104 105	153 563** 817** 851**	Total Group I	008 011 012 013 109 112 121 149 182**

Northern Manpower Survey Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Program. See Volume 6, Part 2, Chapter 3, Table 6 for occupations which apply to code numbers. 7

Information available only for natives (Eskimos) of the Keewatin, Baffin and Central Arctic Coast Regions. For non-native in Mackenzie, sample only, based on survey coverage of only 41 per cent of the total non-native corridor population, 52 per cent in the Mackenzie District. 2/

Indicates need for particular occupation in one or more of the succeeding skill classes. Occupations so marked are counted only once, the first time they occur; in other classes, duplications are placed in brackets. **

Source: DIAND Northern Manpower Survey Program.

Grand		C C	23	1	59		268	n	108	105	12	28	30	ò	128	30	(1)	9	80	4		П	29	6	2	(19) 15	100	601	57	17	H	19	(14)	
Total N.W.T.	Non-Native		17	, T	55	10	137	η.	96	67		76	1 C	1	60) (1)	(1)	, 7	52	7		-	27	7		(17)	L)	200	35) 10	H	14	(10)	
TON	Native		9		4		131		12	1 00) (2	> <	t <	Ť	89	27	ì	2	200 1				2	2	⊣	(2)	r	OT	22	12	li i	2	(7)	È
Rest of N.W.T.	Native		Н				72			1/1	† · ·	t			3.0	7 60	0	_	1	1				П			\	0	′	10	1			
Total Mackenzie District	Non-Native		17	39	55	10	137	m	90	200	10	0 %	77	35	09	000) ((7)	t C	7 7	٢	-	27	7		(17)	15	03 0	ט ה	ري م)	14	(10)	(nT)
Total Macke District	Native		2		7	П	59		0 -	77	77	7 ~	, t	7	C	50	1	-	1 7	7.7			. 2		Н	(2)		10	Ç	T 8		5		(4)
Balance of Mackenzie District	Non-Native		9	S	18		95		C	77	77	7 (2	0	ı	~ c	7			17	n		00)		(7)		41	¢	m		7	⊣ ((T)
Bala	Native				2		17		(η ;	TO	-			(x 0	7		C	7.7			_	4		(2)		ľΩ		7		3		(2)
lowknife	Non-Native		10	28	191	- T	97		;	59	27	2	10	17		32	н (m (20	-1	-	٦ ا	10	-	(8)	6	27		25	- C	9		(5)
Yel	Native		e			,	7 7			7	m		2			ιO			⊢ ·	m					_	4		П		3		2		
Mackenzie	Non-Native		Н	9	2.1	7.7	45			25	18	2	12	6		21			H	11			c	Λ -	-1	(5)	, s	25	6	7		7		(4)
>:	Native		2		c	7	40)		2	11	Н	2	3		23	2			2			r		7			7		13				(2)
		Group II (cont.)	183	188	196	198	199	214**	221**	232**	413	459	015	520	548	556**	557**	563 (Gp. 1)	702	751	805	806	80.8	810	TIS	813 817 (Gn. 1)	• 40	822	824**	831	833	935 838	839	851 (Gp. 1)

NUMBER OF PERSONS WHO HAVE PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS $\frac{1}{2}$, BY ETHNIC ORIGIN IN MACKENZIE IMPACT CORRIDOR AND N.W.T.

			OT MILE		CONTRACT	THE WOLF COLUMN	THOIR WIND	TA O M O T O				
	Total	Total Mackenzie Impact Corridor	Ye11	ellowknife	Balar Mackenzie	Balance of Mackenzie District	Total Dist	Total Mackenzie District	Rest of N.W.T.	Tot N. V	Total N.W.T.	Grand
Group II (cont.)	Native	Non-Native	Native	Non-Native	Native	Non-Native	Native	Non-Native	Native	Native	Non-Native	
852**		7		Π				3			3	e
872 874 875	7	6		13	m	6	ιO	26		W	26	31
876 (Gp. 1) 877**	(36)	(21)	(3)	(13) 1	(17)	(38)	(95)	(72)	(42)	(98)	(72) 1	(170) 3
900**	1 22	2	m	1 5	18	7 7	1 43	13	82	1 125	2 13	2 138
Total Group II	137	254	38	453	87	238	262	945	265	527	945	1,472
Group III												
009	2	26	5 -	1.0	7	36	14	72	H	15	72	87
182**(Gp. 11)	1		4	(4)		(1)	7	(5)		7	(5)	(5)
201 203		18		45	2	7 0	n	67		m	67	70
212 (Gp. 11) 214 (Gp. 11) 221 (Gp. 11)	(40)	(45)	(2)	(46)	(17)	(94)	(65)	(137)	(72)	(131)	(137)	(268)
(Gp.	(2)	(25)	(7)	(59)	(3)	(12)	(12)	(96)	`	(12)	(96)	(108)
249	18	11	13.0	183	m 01	ν 8	40 %	308	32	15	308	380
405	01	wi	ι	7		2	4	12	ς,	7	12	19
413 459 (Gp. 11)	(1)	(2)	n	(2)	(1)	(2) xx	39	(9)	4 (3)	43 (5)	(9)	103
551 556 (Gp. 11)	(23)	2 (21)	1 (5)	1 (32)	(8)	2 (2)	1 (36)	(60)	(32)	1 (68)	5 (60)	(128)
	(2)			(1)	(2)	(2)	(4)	(3)	(23)	(27)	(3)	(30)
569 611		7			2		7	m		7	3	5
615** 760	12	Н		\dashv	00	7	20	9	П	20	9	26

Table 16 (cont'd)
NUMBER OF PERSONS WHO HAVE PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS¹,
BY ETHNIC ORIGIN IN MACKENZIE IMPACT CORRIDOR AND N.W.T.

Grand		2	2	12	(14) (2)	2	(166) (3)	7 4	16	1,512	145	18	17	14	110	(138)	1	1	⊢ 1	34	2,699
Total N.W.T.	Non-Native		П	10	(10)	2	(68)	 1	15	79	25	2	7		35	(13)	(CT)			10	802
H N	Native	2		2	(4)		(98)	ㅁ 7		1,433	120	13	10	7	81	14	(173)	+	ı —	24	1,897
Rest of N.W.T.	Native	0	1	Н			(42) (2)			1.055	49	12	7	7	26	г (°	(82)	-1	П	14	1,236
Total Mackenzie District	Non-Native		1	10	(10)	0	(68) (1)	Π.	15	79	25	120	7		35	5	(13)			10	802
Total M	Native			Н	(4)		(99)	1	t Fol	0 1 0	976	2	l (C)	3	55	13	(43)	-	-1	10	661
Balance of enzie District	Non-Native			œ	(1)		(38)	\vdash	c	(1)	13	7 -	ı		9		(2)			c	164
Balanc Mackenzie	Native			⊷	(2)		(17)		Н		19	TT	_	1	18	2	(18)				135
lowknife	Non-Native				(5)	,	(13)	(+)	c	(1)	98 5	LS ,	t <	10	2.1	(m)	(6)			7	424
Yello	Native						(3)				18	9			~) - 	(3)			2	61
Total Mackenzie Imnact Corridor	Non-Native		Н	2	(4) (2)		$\begin{pmatrix} 1 \\ (17) \end{pmatrix}$		6	`	27	∞	C	7 ~	1 ∞	0 ((2)			m	214
Total M	Native	_			(2)		(36)		7		299	39	~ (7 (ی ر	7 T	(22)			co	465
		Group III (cont.	820	824 (Gp. 11)	828 851 (Gp. 1,11) 852	855	40	877 (Gp. 11) 878**	881** 881**	900 (Gp. 11)	-35	921	922	923	924	4 4 7 C C C	920** 928 (Gn. 11)	929**	930	931	Total Group III

Table 16 (cont'd)
NUMBER OF PERSONS WHO HAVE PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS¹/BY ETHNIC ORIGIN IN MACKENZIE IMPACT CORRIDOR AND N.W.T.

al Grand .T. Total	Non-Native	(6) (11) (2) (4) (6) (26) (10) (14) (2) (2) (1) (2)	(4) (1) (16) (2) (2) (79) (1,512) (35) (114) (5) (19) (13) (138)	(175) (1,865)
Total N.W.T.	Native No	(5) (20) (4) (1)	(4) (1) (1) (1) (79) (14) (125) (1)	(1,690)
Rest of N.W.T.	Native	(3)	(1,055) (26) (1) (1) (82) (1)	(1,168)
Total Mackenzie District	Non-Native	(10) (20) (20) (20) (20) (20) (20) (20) (2	(15) (1) (79) (35) (5) (13)	(175)
Total Dist	Native	(2) (20) (4) (1)	(4) (1) (1) (378) (53) (13) (43)	(522)
Balance of enzie District	Non-Native	(4) (7) (1) (1)	(3) (13) (6) (2)	(32)
Baland Mackenzie	Native	(1) (3) (8) (1) (1) (1)	(1) (61) (16) (2) (18)	(112)
lowknife	Non-Native	(1) (1) (2) (1)	(3) (3) (3) (3) (3) (3) (3) (3) (3) (3)	(85)
Yello	Native		(18) (6) (1) (3)	(28)
Total Mackenzie Impact Corridor	Non-Native	(1) (4) (1) (2) (1) (4) (1) (1)	(2) (2) (2) (2) (2)	(58)
Total N Impact	Native	(1) (12) 1) (2)	(4) (299) (31) (10) (22)	(382)
	Group IV	459 (Gp. 11,111) 569 (Gp. 11) 615 (Gp. 111) 851 (Gp. 111) 859 (Gp. 1,11,111) 878 (Gp. 111)	881 (Gp. 111) 882 (Gp. 111) 900 (Gp. 11,111) 920 (Gp. 111) 925 (Gp. 111) 926 (Gp. 111) 926 (Gp. 111) 929 (Gp. 111)	Total Group IV Total Groups I-

the material does serve to indicate the general level of experience held by northern native residents, and that the bulk of the work force can only be classified under the heading of general labour. $\underline{1}$ /

Appendix 21 contains a detailed occupational inventory by settlement and region for the Mackenzie Impact Corridor. This appendix shows that the Central Mackenzie Impact Region had the fewest qualified/experienced native workers for possible pipeline work, only 102 native residents with possible pipeline-related work experience, compared with 372 in the Lower Mackenzie Impact Region, 166 in the Upper Mackenzie Region.2/ From Appendices 1 and 2, it may be seen that the Central Mackenzie Region residents were also the least qualified in terms of formal academic training, trades training and trades certification. While more current information would be required than that provided by the Mackenzie Manpower Survey (1969-70) to determine if the Central Mackenzie Region is still the lowest on the scale, it is evident that considerable emphasis must be placed on up-grading residents of the region. Such up-grading in terms of both formal training and work experience would be desirable even if there were no possibilities for pipeline work in the region. If the intent of government is to include as many territorial residents, native residents, as possible in pipeline work, some programs aimed at involving the Central Mackenzie people will be required.

Within Table 16, comparison of the background experience of the native population within the Impact Corridor with that of the balance of the Mackenzie District and that of the rest of the N.W.T. is most interesting. In all three primary Skill Class Groups (Skill Class IV not counted because it is a duplication of I through III), the numbers of native workers from the rest of the N.W.T. with the relevant occupations compare favourably with the numbers from the Mackenzie District, and from the Impact Corridor Region itself (Table 17). It is interesting to note that for Skill Class III, there is a higher proportion of natives with those particular skills in the Central and Eastern Arctic ("rest of N.W.T.") than within either the Impact Corridor or the total Mackenzie District. The Central and Eastern Arctic Region native residents compare favourably with Mackenzie District natives in Skill Class II, where the distribution is almost the same, but are not as well represented in Skill Class I.

^{1/}For the native residents covered in the Keewatin, Baffin and Arctic Coast Surveys, information on work experience came largely from records or directly from employers; information sources varied for the Mackenzie Survey. Assignment of much of the work experience to specific occupation categories was often difficult, owing to the variety of work done by many persons, most of whom were carried on pay lists as "labourers". Within the large body of labourers (code 920), therefore, there may be numbers of persons with higher levels of experience than that indicated by the term "labourer".

 $[\]frac{2}{B}$ Based only on Skill Classes I through III, since occupations shown in IV are duplicated.

These comparisons will be of interest if plans are contemplated to "import" native workers from regions outside 1) the immediate corridor area, 2) outside the Mackenzie District.

Supply Versus Demand

No attempt is made in Volume 6 to project either actual numbers of working age residents or the numbers of persons who will probably have pipeline-related experience for the years of estimated maximum pipeline activity. 1/ Some indication may be given, however, of the potential territorial labour supply on the basis of survey information on residents with relevant work experience.

In Table 12 of Chapter 4, above, the numbers of jobs estimated to be available to territorial residents are summarized according to each phase of the total gas pipeline project (construction through to operation, along with associated or ancillary activities.) Material classified according to specific occupations is given in Appendices 12 through 20. Using data from the manpower surveys on persons shown as having related work experience2/ an indication of the basic quality of the local labour supply may be obtained, as well as some indication of the numbers of persons from which pipeline workers might be drawn.

In Table 18, the estimated total labour demand for the period of major pipeline construction and the estimated number of those total jobs designated as being open to territorial residents are shown, along with the numbers of territorial residents having the relevant pipeline-related experience. There is an estimated total of 4,735 jobs, of which 2,294, or 48 per cent have been defined as being available to territorial residents. Within the Impact Corridor, some 1,100 residents held relevant occupations; within the Mackenzie District 3/2,800 residents had the relevant work experience; within the rest of the N.W.T., some 1,500

 $[\]frac{1}{\text{See Volume 7.}}$

^{2/}Using material on first or most recent occupations only, for those who replied to the survey as holding jobs or working in occupations which correspond to those defined in Volume 2 as being pipeline-related.

 $[\]frac{3}{\text{Those }}$ 33 settlements covered by the DIAND Mackenzie Manpower Survey /see Volume 6, Part 1, Chapter 1, Table 1).

Table 17

PERCENTAGE DISTRIBUTION OF NATIVE RESIDENTS HAVING PIPELINE-RELATED WORK EXPERIENCE

(Natives in Each Region by Skill Class as Per Cent of Total N.W.T. Natives in Each Skill Class) BY SPECIFIED REGIONS OF N.W.T. BY SKILL CLASS

		ω!	Skill Classes	ses		
	H	디	III	Total I-III	ΔI	
Impact Corridor	36.5	26.0	24.5	25.3	(22.6)	
Total Mackenzie District $\frac{1}{2}$	59.6	49.7	34.8	39.0	(30.9)	
Rest of N.W.T. $\frac{2}{}$	40.4	50.3	65.2	61.0	(69.1)	
Total N.W.T.	100.0	100.0	100.0	100.0 100.0 100.0 100.0	100.0	

1/ Includes Impact Corridor.

Eskimos of Keewatin, Baffin and Central Arctic Coast Regions. 2

Source: DIAND N.W.T. Manpower Survey Program.

Table 18

COMPARISON OF LABOUR DEMAND IN JOBS POTENTIALLY AVAILABLE TO TERRITORIAL RESIDENTS TO NUMBERS FOR PERIOD OF MAJOR PIPELINE CONSTRUCTION 1 RESIDENTS AVAILABLE TERRITORIAL

Total Jobs in Major Construction Period by Skill Class

Total Demand Total Supply Corridor - Native Non-nat Total All Mackenzie - Native Non-nat Total Rest of N.W.T Native Non-nat Total	Native Non-native 2/ Total Non-native 2/ Total Non-native 3/ Total Total Total	Total Jobs 4,735 4,735 1,140 1,871 2,856 1,543 1,543	Total Jobs in Period 1 Jobs Terr. Res. Jobs 735 2,294 640 (704) 4/ 500 1,140 985 (1,182) 4/ 2,856 1,543 (1,928) 4/ 500 2,043	Total Resident 1,235 0 1,235 0 124 186 42 30	Intal Resident 1,340 134 1,340 137 254 391 262 945 1,207 265 265 265 265	I I I I I I I I I I	Total Resident 763 763 (58) (440) (552) (175) (697) (1,168) (1,288)
Total N.W.T Native	- Native	2,528	$(3,816)^{\frac{4}{4}}$	104	527	1,897	(1,690)
Non-nat	Non-native	2,375		154	1,145	952	(295)
Total	Total	4,903		258	1,672	2,849	(1,985)

 $\frac{1}{2}$ Those shown by manpower survey to have pipeline-related occupations.

on sample coverage only of Mackenzie District non-native population: 41 per cent of total corridor, 52 per cent of district non-native population. 2/

D.I.A.N.D. Manpower Surveys covered only Eskimos of Keewatin, Baffin, Central Arctic Coast Regions; figures are estimated

Estimated numbers of native residents having relevant pipeline-related experience, estimations made to allow for increases in numbers of workers since the times of the various manpower surveys (see below).

4

5/

Figures in brackets in this column not counted as part of potential total available pipeline work force since occupations in Skill Class IV are duplicating those called for in Classes I-III. That is, the demand exists for Class IV workers, but numbers comprising the supply are really only those shown in I-III.

Sources: DIAND Manpower Surveys; Volume 2, Part 2, Impact Study, and related background working papers.

natives and an estimated 500 non-natives 1/ had relevant work experience. For the N.W.T., then, approximately 2,500 natives and an estimated 2,300 non-natives would appear to be potentially able and capable of taking work on the pipeline. On a straight job demand versus labour supply, it would seem that the pipeline labour requirements could be largely filled from within the Territories, at least for the construction phase. Since the above estimations do not include those territorial residents who may have relevant training but were not necessarily working at the pipeline-specific occupations, and since none of those persons were included who in years preceding the manpower survey reference years may have worked in jobs which would give them pipeline-related experience, there would appear to be no immediately apparent reason why all those jobs shown as potentially available to territorial residents could not be filled by them.

Labour Restrictions

It would be most unrealistic to assume that the resident territorial labour force could or would fill all pipeline jobs defined as being available to them. It has been estimated elsewhere in the impact study2/ that only 50 per cent of those members of the territorial work force who appear3/ to have the requisite qualifications for pipeline-related work would be able to or wish to take pipeline work. There are a number of reasons for making an assumption of this kind.

It is highly unlikely that all those members of the non-native resident4/ territorial work force shown as having potential pipeline-related skills would in fact take pipeline work. The majority of the non-native population group who have the requisite pipeline-related qualifications are fully employed, either by government or private enterprise in the North. The largest proportion of those showing the higher order level of skills, those which would qualify them for work

^{1/}Non-natives were not covered by the DIAND Manpower Surveys for the Keewatin, Baffin and Central Arctic Coast Regions; therefore, estimations of potential non-native workers from these regions have been made on the basis of information on employment by territorial and federal government departments and agencies in these regions.

 $[\]frac{2}{\text{See}}$ Volumes 4, 7.

 $[\]frac{3}{\text{See}}$ Volume 7.

^{4/}Transients will come North seeking work - as they always have.
"Resident" has been applied to those covered by the manpower survey since the vast majority were employed in permanent jobs.

in (pipeline) Skill Class I, for example, are occupying positions of authority within government organizations or local businesses. Many are career civil servants who have established their homes in the North; others have established businesses. While a certain portion of those members of the non-native population covered by e.g., the D.I.A.N.D. Mackenzie Manpower Survey were in fact transients, persons on temporary jobs or in the district seeking work, most of those others surveyed were fairly permanent residents. It is reasonable to assume that the high wages likely to be earned in pipeline work will attract a certain proportion of the non-native population, but not in sufficient numbers to make up a large portion of the total required pipeline work force. It is, then, reasonable to assume that at least 95 per cent of those non-native members of the potential territorial resident pipeline work force having the necessary qualifications will not in fact take pipeline work. Other workers who would most likely take pipeline work would be those working in mines, those having relevant skills or experience who are receiving less pay than that obtainable on the pipelines; single men in labouring and trades classifications who would stand to earn more money in pipeline work than in their current work.

The figure given in Table 18 for the total number of nonnative resident workers having pipeline-related skills is based on estimates and samples from the manpower surveys. Nevertheless, the figures may probably be regarded as a fair representation of the number of resident territorial non-natives having direct pipeline-related occupations in the non-pipeline base year. Expanding on the estimates made in Table 18 for the total number of territorial resident non-natives available for pipeline work, it is assumed that some 2,500 others (nonnative) had the requisite skills for pipeline work. It is assumed that up to 95 per cent of these would not seek pipeline work (were construction to commence in the very near future), leaving approximately 125 who would. This leaves an estimated 2,500 native persons with pipelinerelevant experience, and would reduce the total base case potential territorial resident pipeline work force to approximately 2,700. However, further adjustments are required to attempt to adequately determine native residents who are potential pipeline workers.

The numbers of native workers shown in Table 18, 2,528, are those who have worked in occupations defined as being relevant to pipeline work. The D.I.A.N.D. Northern Manpower Survey program achieved quite good coverage of natives in all its phases. $\underline{1}$ / However, the

^{1/}Total Mackenzie survey region 92 per cent; Impact Corridor 87 per cent; Keewatin Region 99 per cent; Baffin Region 94 per cent; Central Arctic Coast Region 96 per cent.

information is somewhat out of date for some N.W.T. regions, particularly for the Keewatin Region. 1/ To allow for the likely increase in the numbers of natives who have since gained relevant experience, it is reasonable to boost the total base year figure by a certain percentage in each main region of the N.W.T., an average being around 18 per cent (Table 18).2/ This would give an estimated base year figure of 3,800 native territorial residents with experience relevant to pipeline work. This could be regarded as the "high" or "maximum" side of the range; that figure shown in Table 18 (2,528) as the "low". While the maximum figure is high, it must be remembered that each year increasing numbers of native residents are taking work and gaining valuable work experience while other native residents are being trained.

However, a number of factors mitigate against the assembling of a native pipeline work force of between 2,500 and 3,800 persons, particularly in the initial stages of pre-construction and construction. Many of those native persons shown by the survey as having had the relevant occupational experience may have had very little in actual fact; many may be only casual or seasonal workers; many may not have actually done work which their listed occupations suggest. Close examination of their qualifications may in fact indicate that many lack adequate background experience for work other than general labouring.

The geographic distribution of the potential native pipeline work force will create problems in placing people for pipeline work. From Table 18 it may be seen that the largest proportion of workers live a considerable distance from the Impact Corridor. Using the figures from the manpower survey, the distribution is as follows: only 25 per cent of the total 2,528 come from the Impact Corridor; taking the N.W.T. as a whole, 47 per cent come from the total Mackenzie District, (i.e., those 33 settlements including corridor settlements covered by the Mackenzie Manpower Survey); the remaining workers come from the rest of the N.W.T., a rather vast region comprised of the Keewatin, Baffin and Central Arctic Coast Regions. Policy concerning the size of the recruitment area will be required; costs of bringing in and maintaining workers from the east coast of Baffin Island will be high. An additional consideration would be the feelings of the people themselves; how many persons from the Keewatin or Baffin will wish to come all the way to the Mackenzie Valley; how many will wish to stick it out once they have arrived?

^{1/}Keewatin: mid-1967 to mid-1968; Baffin and Central Arctic Coast: calendar year 1969; Mackenzie: October 1, 1969 to September 30, 1970.

 $[\]frac{2}{\text{Corridor}}$ 10 per cent; total Mackenzie 20 per cent; rest of N.W.T. 25 per cent.

Conflicts

Possibly the most serious deterrent to early inclusion of large numbers of native workers in the pipeline work force will be the simple fact that other demands being made on the work force will exceed the supply. Work on the Mackenzie Highway construction program began in the Fort Simpson region in mid-summer of 1972. Attempts to place large numbers of native workers on the road were hampered for a time as a result of large numbers of them being involved in firefighting activities in the area. Fire-fighting work is known and understood by local residents; while difficult, it pays reasonably well, is outdoor work which usually takes place during the summer season, and it is near home. Many native workers have permanent jobs in their home communities or in communities reasonably near their home settlements. 1/ Others obtain fairly steady casual work for a good part of the year within or near their communities, balancing this with other activities, such as trapping. $\frac{2}{}$ Others find work with oil or mineral exploration parties and in seasonal work balancing this with community work and other activities. Estimated times of commencement for pipeline construction, based on current information3/ should see the construction of the Mackenzie Highway nearing completion in many places, thus removing one source of job conflict. However, there will always be conflicts of activities which will have to be taken into consideration when recruitment of native workers for pipeline work commences. 4/

The entire territorial resident native potential labour force will not and cannot be involved in pipeline work. The vast majority of pipeline work will affect men only, and primarily able-bodied men. It is clear that the planning of training and placement programs cannot be limited just to pipeline work. Essential work in the communities must continue. In some communities, particularly those which are quite near the actual pipeline as division or staging points there would presumably be some increase in business and service activities. Provision will have to be made for those who are unable or unwilling to take pipeline work, but who may wish to work (or could be encouraged to join the active labour force) in or near their own communities. It is worth assessing the base year labour supply in terms of its potential for work other than on the pipeline, an examination which is carried out in Chapter 6.

 $[\]frac{1}{\text{See Volume 4 for analysis of community activities and involvement of local workers.}}$

 $[\]frac{2}{\text{Volume 5}}$, hunting-trapping in the local economy of the corridor.

 $[\]frac{3}{\text{Volumes 2, 7.}}$

^{4/}Another factor would, of course, be the willingness or desire of many native workers to join the pipeline program.



CHAPTER 6

TERRITORIAL LABOUR SUPPLY BASE FOR NON-PIPELINE EMPLOYMENT

Community Employment

The government is the most active sector in most of the Impact Corridor settlements. $\frac{1}{2}$ Whether federal or territorial, the government is a large employer on either a permanent or season/casual basis. Because government has a wide range of responsibilities and activities in the North, it offers a considerable variety of work experience to the native labour force. Prior to about 1969, government was the largest employer in most parts of the North, even in the Mackenzie District. Results of the D.I.A.N.D. Mackenzie Manpower Survey revealed, however, that the private sector had considerably increased activities in the whole of the Mackenzie Valley and within the Impact Corridor, employing substantial numbers of native workers. Of those natives who reported wage employment during the survey year (October 1, 1969 - September 30, 1970), 54 per cent had worked for private employers, 46 per cent for government, territorial (21 per cent) and federal (25 per cent). $\frac{2}{}$ Since that time, employment of natives in the private sector has doubtless increased significantly as a result of the increased activity in oil exploration and similar activities. In any event, the combination of private and government employers has provided work that over the years has permitted the local labour force to build up a substantial amount of background experience. In the previous chapter, those persons having experience relevant to direct pipeline work were examined. In an attempt to further define the quality of the corridor labour pool, a selection has been made of different occupations, those not represented in the pipeline-potential group. Table 19 summarizes the listing of these occupations for the corridor, the Mackenzie District and the N.W.T. A detailed break-down for the Impact Corridor settlements is contained in Appendix 22. The occupations listed here are those, excluding pipelineoriented ones, which 1) had the largest number of persons represented; 2) were judged as fairly representative of the experience level of the northern labour force. These

^{1/} See Volume 4 for discussion and analysis of government and private activities within the corridor communities.

^{2/} Volume 6, Part 1, Appendix 12; based on reporting of first or most recent occupations by employer, from Mackenzie Manpower Survey.

occupations were also selected for analysis because many may have relevance to pipeline work; others are more likely ones which would be required in any new pipeline communities, or in existing communities which might be expanded considerably in size as a result of pipeline activity. 1/ From Table 19, it is evident that in 1969-70, the largest proportion of the native work force was active in general labour occupations. For the N.W.T. as a whole, janitorial-caretaking accounted for the largest number of workers, followed by nursing assistants, with fire-fighting third. Within the Impact Corridor, the occupation comprising well drilling and related work was well represented, even though grossly underestimated, reflecting the activities of oil exploration largely within the area defined by the impact study as the Lower Mackenzie (Impact) Region.

The first 14 occupations on the total list of 31 are those which may be regarded as the most community-specific, and for the most part, the most unrelated to pipeline work. These occupations are ones which are required within the communities, and the jobs for which are also, for the most part, the ones least likely to be disrupted, i.e., abandoned by pipeline construction activities. They are also occupations for which training programs will be required in order to meet the anticipated increased demands for community services in those communities most likely to be directly affected by the pipeline - Inuvik, Fort Simpson, Norman Wells (see Volume 4).

The lower half of the list shown in Table 19, the remaining 17 occupations, is interesting in that it may be regarded as a sampling of both the private and government sectors. Native workers are not well represented in any of the bottom 17 occupations, some of which are community service or community-specific jobs, e.g., oil burner mechanic; some of which are in the major activities of the private sector in the North, e.g., petroleum and mineral exploration and development. The Mackenzie Manpower Survey refers to a 1969-70 time period; furthermore, it did not achieve complete coverage of the native resident population; it was deficient in the key area of occupations and employment.

It is now estimated that a new survey of the N.W.T. would reveal that substantial numbers of native residents have work experience from oil exploration activities in both the Mackenzie Delta area (Lower Mackenzie Impact Region) and in the Eastern Arctic. It would reveal larger numbers of natives

^{1/} See Volume 4.

SUMMARY INVENTORY OF SELECTED OCCUPATIONS INDICATING GENERAL SKILL LEVELS HELD BY RESIDENTS-1/14 YEARS OF AGE AND OVER BY ETHNIC ORIGIN MACKENZIE IMPACT CORRIDOR AND N.W.T.

TOTAL	3 27 28 28 28 28 98 98 11 10 62 10 14 4 4 4 4 4 4 4 77 77 77 77 77 77 77 77	1,333
Total N.W.T. Native Non-Native	11 15 15 15 10 8 10 8 17 76 44 44 44 44 101 51 101 101 2	733 1,
Native	2 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	009
Rest of N.W.T.	24 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	251
Total Mackenzie District Native Non-Native	15 15 15 11 2 8 11 2 4 4 4 4 4 4 4 4 10 10 10 10 10 10 10 10 10 10 10 10 10	(1)
Total Di.	123 123 133 14 14 158 168	740
Balance of Mackenzie District Native Non-Native	21 21 22 33 11 12 11 14 17 17 17 185	1
Bal Mackenz Native	2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
Yellowknife Native Non-Native	7	
Yellc Native	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	b
Total Mackenzie Impact Corridor Native Non-Native	1	
Total Ma Impact (155 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
e Occupation 2/	Community Health Work Interpreters Teachers, Instructors Nurses, Medical, dental technicians Practical nurses Social Welfare worker Firemen, fire protection R.C.M.P. Special Constable Game Officer, Assistant Nurses Assistant, Aides Lay dispenser Janitors Social Services aide Deck officer, ship Deck ratings, bargemen Taxi drivers chauffeur Foremen, mine Prospectors Timbermen Miners, n.e.s. Millmen Well Drillers and related Labourers, mine Miners, underground Quarry and related work Metalwork occupation, n.e.s. Oil Burner mechanics Boiler firemen (ex. ship) Labourer, sealift Labourer, sealift Labourer, sealift	
Code	133 133 133 133 133 133 133 133 133 133	

2/ Codes are standard occupational codes used by Statistics Canada and in D.I.A.N.D. Northern Manpower Survey Program. 1/1 Small sample only (41 per cent) of non-native population; non-natives not covered in "Rest of N.W.T.".

Source: D.I.A.N.D. Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970.

in more skilled occupations, and particularly in clerical-commercial types of work. It would also, however, show that the majority of native workers are still engaged in the general labourer classifications and in the semi-skilled jobs, e.g., trades helpers. It is estimated also that a breakdown of occupations held by natives in terms of the pipeline construction-oriented occupations would reveal that there are still very few workers capable of fitting readily into Skill Classes I and II.

The amount of lead time available to the federal and territorial governments for commencement of pipeline activities will directly affect the supply of native workers capable of fitting right into pipeline work at the initial stages. In the interim, policies by both levels of government concerning employment of natives will determine how many native residents will be able to obtain training and relevant, meaningful work experience under existing economic conditions in the N.W.T. That is, the extent of efforts to fit native workers into government jobs in a variety of occupational fields will determine just what experience they acquire.

At present, however, for purposes of the impact study, it is possible to attempt to judge the extent to which territorial native residents will be capable of fitting into pipeline work only on the basis of existing data sources, primarily the Mackenzie Manpower Survey and the other N.W.T. Manpower Surveys. With the exception of a small study done on certain selected Mackenzie Valley settlements, $\frac{1}{2}$ no updating of these surveys has been done, nor have any other surveys been carried out which would provide more current figures on employment, occupations, training. Therefore, despite its deficiencies, the N.W.T. Manpower Survey program must stand as the source of data, particularly on the territorial native population, for any assessment of the anticipated involvement of that population in pipeline work. Similarly, in the examination of likely training needs presented in Part 3, below, the manpower survey data are the only comprehensive ones available at the present time.

[&]quot;Settlement Council Labour Pools", a feasibility study done by Gemini North, Yellowknife, N.W.T., March, 1972, assessing the feasibility of establishing labour pools to be run by local community councils in the settlements of Aklavik, Fort Franklin, Fort Good Hope, Fort Norman, Fort McPherson, Tuktoyaktuk. This study does not, however, offer detailed information on current occupational breakdowns within the communities.

Appendix 1

INVENTORY OF PERSONS HAVING TRAINING 1 / RELATED TO PIPELINE CONSTRUCTION WORK BY ETHNIC ORIGIN AND SETTLEMENT MACKENZIE IMPACT CORRIDOR, N.W.T.

	Total Region Native Non-native	1 17 6 7 6 36	3 1 16 2 16	3 4 7 15	1 4	1 4 4	66 7 1 1 2 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Tuktoyaktuk Native Non-native	2 2	7	1 1	1		1
E REGION	Arctic Red River Native Non-native	1 1 2				1	1
LOWER MACKENZIE REGION	Ft. McPherson Native Non-native	5 4 1	Q	1 1 2 2 1			2
	Aklavik Native Non-Native	5 1 1	г п г	2 3	1	2	1 1
	Inuvik Native Non-Native	1 3 3 3 3 1 1	2 2 0 0	3 1 15	2 2	H H	5 3
	Code No.	005 006 008 009	013 014 015 020	022 023 024 025 025	028 029 031	034 037	040 045 047 048 049

 $\underline{1}/$ See Table 1, Chapter 2, Page 2-10 for list of course names.

Source: DIAND Mackenzie Manpower Survey.

Appendix 1 (cont'd)

INVENTORY OF PERSONS HAVING TRAINING L/L RELATED TO PIPELINE CONSTRUCTION WORK BY ETHNIC ORIGIN AND SETTLEMENT MACKENZIE INFACT CORRIDOR, N.W.T.

	Total Region Native Non-native	2 3 3 2 1 1 1 1 2 3 3 4 4 4 5 1 1 2 3 3 4 4 5 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	1 30 1 19 4
	Tuktoyaktuk Native Non-native	7 7	н
E REGION	Arctic Red River Native Non-native	•	⊣
LOWER MACKENZIE REGION	Ft. McPherson Native Non-native	1 T T T T T T T T T T T T T T T T T T T	4 4
	Aklavík Native Non-native	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6 1
	Inuvik Native Non-native	1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2	2 2 2 188 3.
	Code No.	050 051 052 054 055 060 060 061 072 073 073 074 075 080 080 081 081 083 083 089 089	096 099 102 103 104

Appendix 1 (cont'd)

INVENTORY OF PERSONS HAVING TRAININGL/ RELATED TO PIPELINE CONSTRUCTION WORK BY ETHNIC ORIGIN AND SETTLEMENT MACKENZIE IMPACT CORRIDOR, N.W.T.

	Total Region Native Non-native	38	9 2		1 9	H							2	1	-	1	П		Т		116 289	
	Tuktoyaktuk Native Non-native																				18 0	
REGION	Arctic Red River Native Non-native																				8 0	
LOWER MACKENZIE REGION	Ft. McPherson Native Non-native	2																			27 10	
	Aklavik Native Non-native	n	H		₽																30 25	
	Inuvik Native Non-native	33	200		∞	1		٦					2	П	1		П		г		33 254	
	Code No.	105 107 118	119	121	124	133	139	140	201	202	208	315	319	327	328	330	340	350	355	358	370 Total	

Appendix 1 (cont'd)

INVENTORY OF PERSONS HAVING TRAINING1/ RELATED TO PIPELINE CONSTRUCTION WORK BY ETHNIC ORIGIN AND SETTLEMENT MACKENZIE IMPACT CORRIDOR, N.W.T.

	Total Region Native Non-native	3 2 3	m	1 1 1 2 3	7 1 1 1	T T
	Native Non-native N	2		T T	. г	
IE REGION	Ft. Good Hope Native Non-native	13		1 2 2		
CENTRAL MACKENZIE REGION	Ft. Franklin Native Non-native				2	67
	Colville Lake Native Non-native					
	Norman Wells Native Non-native	m	m	ლ ⊣ ლ	1	
	Code No.	000	012 013 014 015	021 022 023 024 025	028 028 029 031 033	035 037 040 045 047 048

Appendix 1 (cont'd)

INVENTORY OF PERSONS HAVING TRAINING 1 / RELATED TO PIPELINE CONSTRUCTION WORK BY ETHNIC ORIGIN AND SETTLEMENT MACKENZIE IMPACT CORRIDOR, N.W.T.

	Total Region Native Non-native			٠.		1	1		r	⊣				1 4					4 7
	Ft. Norman Native Non-native		Н	ı		٠	7							н					
IE REGION	Ft. Good Hope Native Non-native													1					1 1
CENTRAL MACKENZIE REGION	Ft. Franklin Native Non-native																		m
	Colville Lake Native Non-native																		
	Norman Wells Native Non-native			П		ri			1				П	m					1
	Code No.	050	052	054	950	060	790	065	072	073	075	077	080	081	087	680	094	960	102 103 104

Appendix 1 (cont'd)

		Total Region Native Non-native	1 10 10 4 4	15 56
NSTRUCTION WORK R, N.W.T.		Ft. Norman Native Non-native	e 0	1 13
RELATED TO PIPELINE CONSTRUCTION WORK ACKENZIE IMPACT CORRIDOR, N.W.T.	NOIS	Ft. Good Hope Native Non-native		10 5
ORY OF PERSONS HAVING TRAINING $^{1}/$ RELATED TO PIPELINE CONSTRUCTIO BY ETHNIC ORIGIN AND SETTLEMENT MACKENZIE IMPACT CORRIDOR, N.W.T.	CENTRAL MACKENZIE REGION	Ft. Franklin Native Non-native Nat		2 7 1
INVENTORY OF PERSONS BY ETHNIC ORIG		Colville Lake Native Non-native		1 0
		Norman Wells Native Non-native	2 1 4	1 31
		Code No.	105 118 119 119 120 121 121 121 123 133 139 139 320 320 320 320 320 320 320 320 320 320	Total

Appendix 1 (cont'd)

INVENTORY OF PERSONS HAVING TRAINING L/L RELATED TO PIPELINE CONSTRUCTION WORKS BY ETHNIC ORIGIN AND SETTLEMENT MACKENZIE IMPACT CORRIDOR, N.W.I.

UPPER MACKENZIE REGION

Total Region Non-	3 2 2 2 2 2 2 2 3 3 2 3 3 2 3 3 3 3 3 3	10034	14 11 29	v с н г ,	10 10
Tota]	12 2 4	13	10	П	
Hay River Non- Itive Native	2 29 24	12123	12 25 25	7 1 1 1 7	10 10
Hay F	5 6	Ю	\leftarrow		
Trout Lake Non-					
Nahanni Butte Non- Native Native		П			
Jean Marie River Non- Native Native	1		н п		
Ft. Wrigley Non-		H	П		
Providence Non- Native Native			1		
	7	7	7 7		
Ft. Liard Non-	П			Н	
Ft. Native	ſŲ		m 64		
Ft. Simpson Native Native	4	нн ,	1 325		7
Sim		9	ю н		
Code No.	005 006 008 009 012	014 015 020 021 022	023 024 025 026 027	029 031 033 034 035	040 045 047 048 049

Appendix 1 (cont'd)

inventory of persons having training \underline{L}^{J} related to pipeline construction work by ethnic origin and settlement mackenzie impact corridor, n.w.t.

UPPER MACKENZIE REGION

Total Region Non-	n 1 → c	C7 4	1 22 3	11 12 2 2 6	н	26	7	23
Tota]	r	4	е н	Ŋ				
Non- Native	2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	77	17	10 1 2		25	7	20
Hay River Nor				7				
Trout Lake Non-								
N								
Nahanni Butte Non-								
Nati								
Jean Marie River Non- ative Native								
2			2					
Ft. Wrigley Non- ive Native			m	-				
Nat			Н					
Ft. Providence Non- ative Native								
21			H					
Ft. Liard Non-						H		
Nat								
Ft. Simpson Non-	1 -	7	1121		·	-1		m
Sim				Н				H
Code No.	050	054 055 055	060 061 064 065	068 072 073 074	075	080 081 083 087	088 089 090 094 096	099 102 103 104

Appendix 1 (cont'd)

INVENTORY OF PERSONS HAVING TRAINING L/ RELATED TO PIPELINE CONSTRUCTION WORK BY ETHNIC ORIGIN AND SETTLEMENT MACKENZIE IMPACT CORRIDOR, N.W.I.

UPPER MACKENZIE REGION

Total Region Non-	3,0 11 11 1 11 7 15 1 1 1 1 1 1 1 1 1 1 1 1	352
Total	r r	63
iver Non- Native	50 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	303
Hay River NC Native Nati	н	19
ake Non- Native		0
Trout Lake No Native Nat		0
nni te Non- Native		0
Nahanni Butte Native Na		Н
Jean Marie River Non- tive Native		0
Marie Native		5
Ft. Wrigley Non-	74	00
Nati		m
Providence Non-		Н
Prov	П	12
Ft. Liard Non-	н	4
Ft. Native		10
Simpson Non- ive Native		36
Nat		11 13
Code No.	1007 1118 1119 1119 1120 1133 1133 1133 1133 1133 1133 1133	Total

APPENDIX

NUMBER OF RESIDENTS HOLDING TRADE AND JOURNEYMENS' CERTIFICATES*

			OH
			Certificate Not Specified
			Other Certificate
MENT IN THE	N.W.T.	e Region	Trades Certificate
ETHNIC ORIGIN AND SETTLEMENT IN THE	MACKENZIE IMPACT CORRIDOR, N.W.T.	Lower Mackenzie Region	Journeymen's Certificate (Territories)
BY ETHNIC ORI	MACKENZIE I		Tradesmen's Qualification Certificate (Provinces)
			ttlement

otal 345 48 24 10 2 6 10 -1 1 10 14 I - 1 $\vdash \vdash$ 13 15 1 1 14 19 19 Non-native Non-native Non-native Non-native Non-native Non-native Native Native Native Native Native Native River Fort McPherson Tuktoyaktuk Red Aklavik Arctic Inuvik Total Set

*Males Only

Sept. 30, 1970, Table 12. 1 Source: D.I.A.N.D. Mackenzie Manpower Survey, Oct. 1, 1969

APPENDIX 2 (cont'd)

NUMBER OF RESIDENTS HOLDING TRADE AND JOURNEYMENS' CERTIFICATES*

BY ETHNIC ORIGIN AND SETTLEMENT IN THE

MACKENZIE IMPACT CORRIDOR, N.W.T.

Central Mackenzie Region

Tradesmen's

Native	Settlement (Pro	Qualification Certificate (Provinces)	Journeymen's Certificate (Territories)	Trade Certificate	Other Certificate	Certificate Not Specified	Total
	ve native	1 1	1 1	ł i	1 1	1 1	1 1
	in Native Non-native Ope	1 1	t I	1 1-1	1 1	1 1	! r-l
	Native Non-native	1 1	1 1	1 1	1 1	1 1	! 1
	Native Non-native S	1 1	1 1	t f	1 1	۱ ۲	1 H
1 9 9 1 1	native Non-native	1 1	1 1	Нω	1 1	1 72	10
	Native Non-native	1 1	t t	L1 00	1 1	ικ	H 2

D.I.A.N.D. Mackenzie Manpower Survey, Oct. 1, 1969 - Sept. 30, 1970, Table 12. Source:

APPENDIX 2 (cont'd)

NUMBER OF RESIDENTS HOLDING TRADE AND JOURNEYMENS' CERTIFICATES*

BY ETHNIC ORIGIN AND SETTLEMENT IN THE

MACKENZIE IMPACT CORRIDOR, N.W.T.

Upper Mackenzie Region

Total	1 1	4 1	C/ 4 ⁴	l I	1 1	1 1	1 1	53	57
Certificate Not Specified	l i	1 1	-1 ες	£ 1	i	i i	1 1	10	1 12
Other Certificate	1 1	m 1	1 1	1 1	1 1	1 1	1 1	lΜ	ന ന
Trade Certificate	t I	i i	⊢	i i	ı t	ıı	t t	17	2
Journeymen's Certificate (Territories)	1 1	⊢ 1	1 11	1 1	1 1	1 1	1 1	1 15	2
Tradesmen's Qualification Certificate (Provinces)	1 1	1 1	1 1	1 1		1 1		v.	ve 9
	d Native Non-native	Providence Native Non-native	Native Non-native	Native Non-native	e River Native Non-native	Butte Native Non-native	Native Non-native		Native Non-native
Settlement	Fort Liard	Fort Prov.		FOIL WILGIES N	Jean Marie	Nahanni B	Trout Lake	Hay River	Total

TOTAL PIPELINE CONSTRUCTION JOB REQUIREMENTS DURING PERIOD OF MAJOR PIPE CONSTRUCTION

(Occupational Grouping and Labour Skill Classification)

Pipeline Impact Study Code No.	Summarized Occupational Group-	DIAND	Manpowe	wer Survey n Codes	Total Jobs ² / in Period	Jobs	in Ea ass in	ch Ski Perio	$\frac{11^{\frac{3}{2}}}{d}$
						H	II	III	IV
	Foremen	10.	11. 8		LC		r,		c
	Principal Operators	74.	76. 8)) -		200	0 6	7
18	ics	2	22		123	1 4	707		9
	Mechanic's Helper	23,	27. 9	24	1 (ο α	1 1	7 0
	Oilers	~	•		7	1) L		
	Labour (Pipelaying	615, 8	59.9	20, 926.	. 6	1	114	727	1 X Y
	d Compressor)	928) 		1)	>
	44	551, 5	56		-		OC.	306	
	elder	$\overline{}$			~	503)	2
36	Welder's Helpers	20,	28		687	J	206	٤7٤	138
	Engineers	60	66		- 0	14) <u>—</u>) I
	Technicians	82,	00	52	4.3	. 6	3.5	Ľ	
	Surveyors	83,	∞		24	2	22) [1
	10	00	98, 85		62	ı	15	37	10
	dent	10,	9,8	51	28	2.1	7		
					14	9	. 00	Î	ı
	Safety Staff	•	3, 1	6 7	19	7	12	ı	ı
	ffice Manager	, 90	∞		19	11	00	ł	ı
	ffice Man		03, 23	32, 405	14		7	2	ı
	Administ. Trainee	14,	2, 2	77	24	1	17	7	ı
27	Purchasing Agent	800			6	7		- 8	8
	Warehousing	∞			14	4	10	1	ı
	TOTAL				4,735	1,235 1	,340 1	, 397	763
	Maximum Estimate Minimum Estimate				5,446	1,421 1	541 1	,607	877
								ł	

- 1/ See Chapter 2, Table 4.
- 2/ Based on Intermediate Estimate.
- See Chapter 2, Table 3.
- Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

Appendix 4

TOTAL COMPRESSOR STATIONS AND FACILITY CONSTRUCTION JOB REQUIREMENTS DURING PERIOD OF MAJOR PIPE CONSTRUCTION

(Occupational Grouping and Labour Skill Classification)

[3/	IV		l :	! !	1 1	- 1	1		ı	I	1	ı	ı)	38 1		1	38	45	
Sach Skill-	III	1	1 <	t I	1	10	7		1 (n c	7 7	91	0 Y F) I	75		1 2 1	151	173	
s in l	II	9	2,0	4 0	25	3.7	98		7 C	13	2.3	7 - 6	7 F	1 (53		13	436	501	
Job	ΗΙ	1	12		9 9		34	1 6		1 4	۱ د	F 1	1	c	n I		9	100	115	
Total Jobs 2/ in Period		16	27	. 00	31	47	127	7.7	, t	310	7 7 7	777	777		166		16	725	834	
DIAND Manpower Survey Occupation Codes		51, 90	74, 87	02, 109	82, 19	51, 930	805, 806, 808, 810,	31, 83	60 67	· 10	60. 92	20	22	06, 010, 18	55, 859	(88 2 8 2			
Summarized Occupational Group-		rem	rincipa	ine	echnici	arpenter	Millwrights	Electricians	\vdash	ct	enter Apprent	er Apprentice	an Appre	e Manager	Labour (Pipelaying	and compressor	rurchasing Agent Warehousing	IOTAL	Maximum Estimate Minimum Estimate	ter 2, Table 4. Intermediate Estimate. ter 2, Table 3.
Pipeline Impact Study Code No.		12		11			20	6	5	13	7	25	10	2.2	16		34			$\frac{1}{2}$ / See Chapt Based on $\frac{3}{3}$ / See Chapt.

Source:

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972.

Appendix 5

TOTAL COMPRESSOR STATION AND FACILITY CONSTRUCTION JOBS IN POST PIPE COMPRESSOR AND FACILITY CONSTRUCTION PERIOD

(Occupational Grouping and Labour Skill Classification)

N I N	2 2 2 1 1 1 1 1 1 1 1 2 2 1 1 1 2 2 2 1 1 2 3 2 3
ach Skill ³ Period	10 10 10 10 10 10 10 10 10 10 10 10 10 1
in E ss in	17 17 14 21 18 18 18 18 18 25 25 25 213
Jobs Cla	20 4 4 4 7 7 9 8 9 8 9 8 9 8 9 9 9 9 9 9 9 9 9 9
Total Jobs 2/ in Period	27 18 18 18 27 27 28 28 28 28 29 423 487 359
DIAND Manpower Survey Occupation Codes	851, 900 874, 876, 877 102, 109 182, 198, 852 751, 930 805, 806, 808, 810, 811, 81 249 852 760, 921 820, 923 922 006, 010, 188 855, 859, 928 882
Summarized Occupational Group_/	Foremen Principal Operators Engineers Technicians Carpenters Millwrights Electricians Clerical Inspectors Carpenter Apprentice Plumber Apprentice Plumber Apprentice Office Manager Labour (Pipelaying and Compressor) Purchasing Agent Warehousing TOTAL Maximum Estimate
Pipeline Impact Study Code No.	12 26 11 33 20 33 10 10 22 16 34 34

1/ See Chapter 2, Table 4. $\frac{2}{3}/$ Based on Intermediate Estimate. $\frac{3}{3}/$ See Chapter 2, Table 3.

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

111600111

82

109

165 123

00

356

95

144

310

204 106

 $1 - \frac{1}{4}$ 0

ΛI

Appendix 6

TOTAL OFF-SITE TRANSPORTATION AND HANDLING JOBS DURING PERIOD OF MAJOR PIPE CONSTRUCTION

(Occupational Grouping and

	ach Skili ³ / n Period III	139
	in E	400 111 80 80 111
	Jobs	1 1 1 1 1 1 1 1 1 1
	Jobs2/ iod Total	14 53 11 11 114 94 6
	otal n Per Yukon	23 7 7 2 3 2 7 7 2 3 2 7 7 8 3 2 7 7 8 3 2 7 7 8 3 2 7 7 8 3 2 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8
	TMN	111
Labour Skill Classification	DIAND Manpower Survey Occupation Codes	510, 900 874, 876, 877, 520, 541 823 823 881, 882, 920, 545, 547 556 014, 212, 214 234
	Summarized 0.0ccupational Group-	Foremen Principal Operators— Mechanics Mechanic's Helper Labour/Warehousing— Truck Drivers Administrative Trainee Accountant Office Assistant
	Pipeline Impact Study Code No.	2 1 2 8 7 7 8 8 6 2 3 1 2 8 8 7 3 1 5 8 8 7 3 1 5 8 7 3 1 5 8 7 3 1 5 8 8 7 3 1 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

Includes flight crews and tug crews. (Labour/Warehousing 545, 547). 2/ See Chapter 2, Table 3. 13/2/

Includes flight crews and tug crews. (Princiapl Operators 520, 541).

14/

Based on Intermediate Estimate.

Source:

See Chapter 2, Table 4.

Estimate

Maximum

TOTAL

Minimum Estimate

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972.

200

Appendix 7

TOTAL OFF-SITE TRANSPORTATION JOB REQUIREMENTS IN POST PIPE COMPRESSOR AND FACILITY CONSTRUCTION PERIOD

(Occupational Grouping and Labour Skill Classification)

_	4	7 7 7 7
Each Skill ³ / in Period	1	21 24 18
in	H	8 67
Jobs		1 0 00
Total Jobs ² / in Period	. 9 1 1 4 2 F 1 1 9 J	4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
DIAND Manpower Survey Occupation Codes	510, 900 520, 874, 876, 877 823 823 881, 882, 920 556 014, 212, 214	2.5.2
Summarized Occupational Group 1/	nal Opera ics ic's Help Warehous Drivers	Office Assistant TOTAL Maximum Estimate Minimum Estimate
Pipeline Impact Study Code No.	12 26 18 17 12 12	. 53

 $\frac{1}{2}$ / See Chapter 2, Table 4. $\frac{2}{3}$ / Based on Intermediate Estimate. $\frac{3}{3}$ / See Chapter 2, Table 3.

Includes flight crews (520)

7 +

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

Appendix 8

DURING PERIOD OF MAJOR PIPE CONSTRUCTION CATERING AND CAMP OPERATING JOBS

Labour Skill Classification) (Occupational Grouping and

3/	IV	ı	1	ı	99	126	ı	3	2 -	79 61	227	
h Skill eriod	III	-	11	1.2	118	8 8	28	00	16	283	325	
in E ss in	II	30	31	65	31	38	41	20	28	284	327	
Jobs Cla	нΙ	7	1	ŀ	1	1	ı	ı	1	4	3 4	
Total Jobs ² / in Period			42			5	69	31	94	768	883 653	
DIAND Manpower Survey Occupation Codes		, 01	009, 014	13, 702	5, 459, 925	405, 454, 459, 760, 920, 921, 921, 927, 930, 931	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	10, 830, 831, 838	03, 212, 214, 24			
Summarized Occupational Group-/		Manager	Assistant Manager	;	Cook's Helper	Labour	nter	ther T	Clerical	TOTAL	Maximum Estimate Minimum Estimate	ter 2, Table 4. Intermediate Estimate. ter 2, Table 3.
Pipeline Impact Study Code No.		2.2	7	1 0		14	3.3	24	7.3			See Chapter Based on In See Chapter
P P a												13/2/17

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

COMPRESSOR CATERING AND CAMP OPERATING JOBS IN POST PIPE AND FACILITY CONSTRUCTION PERIOD

(Occupational Grouping and Labour Skill Classification)

~ I	IV	10 10 118 118
h Skill ³ / Period	III	1 1 2 1 1 2 2 1 19
in Each ass in P	H	25 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3
Jobs C1	ы	
Total $Jobs^{2}/In Period$		18 18 21 21 44 55 55
DIAND Manpower Survey Occupation Codes		006, 010 009, 014 413, 702 415, 459, 925 405, 454, 459, 760, 920, 921, 927, 930, 931 751 810, 830, 831, 838, 859 201, 203, 212, 214, 249
Summarized 1/		Manager Assistant Manager Cook's Helper Labour Carpenters Other Trades Clerical TOTAL Maximum Estimate Minimum Estimate
Pipeline Im- pact Study	Code. NO.	22 2 6 7 14 24 23

1/ See Chapter 2, Table 4. 2/ Based on Intermediate Estimate. 3/ See Chapter 2, Table 3.

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

OPERATION AND MAINTENANCE STAFF JOBS IN POST PIPE COMPRESSOR AND FACILITY CONSTRUCTION PERIOD

Appendix 10

(Occupational Grouping and Labour Skill Classification)

	IV		I	I	I	ı	ı	1	ı	1	i	ľ	ı	ı	ı	ı	۱ <	Ť	ı		1 0	7 1		9	7	. 72	
ch Skill ³ . Period	III		î	ā	I	۱ -	4	I	I	1	I -	-	l -	4	l	۱ <	t 00)	1	1 1	1 0	7 1	-	20		17	
s in Each lass in Pe	II	-	4	- 1	\ C	7 ⊔	n v	-, t	H C	7 -	- 1	1 <	t c	2) (r	۱ ۱		1	C	1 <	t c	7 2	1	61		52	
Job	ы	ď) [-1 α) i	1 :	l	l (l 1	i I		-	1 1	-	-1 cr	ו ר	1		ı	1	ı	Н		18		1.5	
Total $Jobs_2^2$ / in Period		7	· -	7.5) c	1 0		t	1 0	J -	H	ור	7		. 4	9	13		2	7		· m		105	121	8 8	
DIAND Manpower Survey Occupation Codes		10, 102, 10	02, 104, 109		06,00	12	20	\sim	0	0	00	LO	, 9 /	\sim	-	10	N		\vdash	5	83	04,					
Summarized Occupational Group 1/		Managerial	Engineering	nician	Administration	Clerical	Pilots	Aircraft Mechanics	Machinists	Purchasing	Warehousing	Foremen	Equipment Operators	pment	Welders	Truck Drivers	Labour (Operating and	Mainte	Plumbers	d	Station Operators	Superintendents		TOTAL	Estima	Minimum Estimate	E C
Pipeline Impact Study Code No.		-	1	33	2.2	23	26	24	24	7	4	2	9	∞	5	∞	15			3	24	24					1/ 000 010

 $\frac{1}{2}$ / See Chapter 2, Table 4. $\frac{2}{3}$ / Based on Intermediate Estimate. $\frac{3}{3}$ / See Chapter 2, Table 3.

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972 Source:

OPERATION AND MAINTENANCE STAFF; PERMANENT JOBS IN POST CONSTRUCTION CAPACITY OPERATION PERIOD

(Occupational Grouping and Labour Skill Classification)

_	IV	i i	1	ı	ı	1	ł	ı		1			ı	1	ı	7	•	1	1	3	1		10	11	∞	
h Skill3 Period	III	1 1	1 1	ı	٧) i	1	1	ı		ı 	ı	1	1	9	15	ì	1	Н	m			35	7 0		
in Eac ass in	II	2	7 %	† ‹‹	0 0	1	, (r	7	-	l	7	, Lſ) [-	1 10)	1 ("	n	4	· (c	· v) (T		116	134	66	
Jobs C1	ыl	70 0	7 7	- -	-1 +-	-l I		i I	-	1 1	-	٦ -		ع ١	o i		l	1	8	-	4 0	1	36	41	31	
Total Jobs $\frac{2}{1}$		7	7 0	24 00 ~	7 7	7 7	· c	n ~) t	ИС	N C	ז ת	- 6	L L	7 7	- u	67	7	7 1				197	2	168	
DIAND Manpower Survey Occupation Codes		10, 102, 1	, 10	8	96, 009	12, 23	\sim 1	\sim	\circ		2 5	ഥ		\sim 1		56		T	\dashv 1	51	34	04, I9				
Summarized 1/		Managerial	erin	Technicians	S	Clerical	Pilots	Aircraft Mechanics	n i	أسره	Warehousing	Foremen	rato	Mechanic	Welders	ers	6	t	Plumbers	arpent	Operat	uperintenden	TOTAL		Maximum Estimate Minimum Estimate	Z FF
Pipeline Impact Study	2	11	11	33	22	23	26	24	24	27	7	2	9	∞	5				24	c	24	24				1

2 - 82

 $[\]frac{1}{2}$ / See Chapter 2, Table 4. $\frac{2}{3}$ / Based on Intermediate Estimate. $\frac{3}{3}$ / See Chapter 2, Table 3.

Source: Evaluation of Occupational Classifications and Direct Labour Requirements in Northern

POTENTIAL PIPELINE CONSTRUCTION JOBS AVAILABLE TO TERRITORIAL MAJOR PIPE CONSTRUCTION RESIDENTS DURING PERIOD OF

(Occupational Grouping and Labour Skill Classification)

Pipeline Im- pact Study Code No.	Summarized Occupational Group 1/	DIAND Manpower Occupation C	Survey	Total Jobs 2 /in Period	Jobs	in Ea	Each Skill- in Period	3/
					HI	II	III	IV
12	Foremen	10, 611, 85	006		1	9		2
26	Principal Operators	74, 876, 877		108	1	26	8 2	1
18	S	21, 822			1			1
19	Mechanics Helper	23, 82		0	1	4	7.5	24
21	Oilers	78		0	i	5	76	21
16	ur (Pipe	615, 859, 920,	926,	1,033	ł	11	454	568
	Compressor	28						
8	Drivers (Truck & Bus)	2		3	1	28	306	ı
	Welders	17		\vdash	ŧ	11	1	
	Welder's Helpers	20,92		502	ı	21	343	138
		09, 19			ı	-		ı
	Technicians	82, 19		∞	ı	m	5	83 1
	Surveyors	83, 198		2	1	2	i	ı
3.2	Surveyors Assistant	82, 198, 8		48	ı	H	3.7	10
	Superintendents	10, 109, 85			ł	-	ı	ı
	pu	51		1	1	\vdash	1	ı
	Safety Staff	04, 14		П	ı	Н	ł	ş
	Office Managers	06, 188		1	1	Н	1	ı
	nage	0	405	m	1		2	į
2	Administ. Trainee	14, 212, 214		6	ı	2	7	ı
2.7	Purchasing Agent	08		ı	1	1	ı	ł
	50	00		1	11		1	1
	TOTAL			2,294	0	134	1,397	763
				1	,		,	
	Maximum Estimate Minimum Estimate			2,638 1,949	00	154	1,607	877
1/ See Chapter	ter 2, Table 4.							

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972 Source:

Based on Intermediate Estimate.

See Chapter 2, Table 3.

Appendix 13

POTENTIAL COMPRESSOR STATION AND FACILITY CONSTRUCTION JOBS AVAILABLE TO TERRITORIAL RESIDENTS DURING PERIOD OF MAJOR PIPE CONSTRUCTION

(Occupational Grouping and Labour Skill Classification)

Pipeline Impact Study	Summarized 1./	DIAND Manpower Survey Occupation Codes	Total Jobs 2 /in Period	Jobs	in Eac ass in	Each Skill ³ / in Period	3/
2				нΙ	II	III	ΔĪ
			-	1		1	ı
12	Foremen	, 900	4 1		۱۲	~	ļ
26	Principal Operators	4,87	_	1	n	†	ı
) [S L S	2, 10	ı	I	L	l	I
4 6	Ci	7,	ന	I	რ -	1 0	I
) (°	ters	1, 930	14	ı	7	10	ı
20	lwrigh	805, 806, 808, 810, 811,	16	ı	D)	_	1
		0	c	ı	۲	í	1
6	Electricians	831, 839	m -	I) L	("	2
5	Clerical	249	7	I	-l c	٦ ،	-
13	Inspectors	852		I	7 (7 7	84
7	d	0,		I	n	7 T	
25	lumber Apprentic	0, 92	19	ı	m (10	1
0 -	cian App	922		1	r) 1	9 T	1
20	ger	6, 010, 1	-	ì	I		1 0
9 T	our (Pipel	5, 859, 92	118	ı	2	(2)	ς α
	and Compres		1		7"	1	1
	Purchasing Agent	0	→ ‹	ŧ	-1	١٢	ı
34	00	882	~	11		7	
	TOTAL		232	0	43	151	38
	Maximum Estimate Minimum Estimate		267 198	00	49	173	33
1/ See Chapter	oter 2, Table 4.						

 $\frac{1}{2}$ / Based on Intermediate Estimate. $\frac{3}{3}$ / See Chapter 2, T#ble 3.

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972 Source:

Appendix 14

CONSTRUCTION PERIOD AVAILABLE TO TERRITORIAL RESIDENTS STATION AND FACILITY CONSTRUCTION JOBS IN POST PIPE POTENTIAL COMPRESSOR COMPRESSOR AND FACILITY

(Occupational Grouping and Labour Skill Classification)

Pipeline Impact Study Code No.	Summarized Occupational Group 1/	DIAND Manpower Survey Occupation Codes	Total Jobs $\frac{2}{in}$ Period	Jobs Cla	in E	ach Skill n Period	13/
				H	II	III	IV
	Foremen	51, 90	1	ı	ı	ı	ı
	Principal Operators	74, 87	ľ	ı	6	cr	ı
11	SIS	02, 109) [ı	1 1) I	ı
	Technicians	82, 19	ri	ì		ı	ı
3	Carpenters	51, 930	0	ı	7	9	1
20	Millwrights	5	0	ı	5	4	1
6	Electricians	31, 83	2	ı	6	1	1
2		67	1 m	l I	J	۱۰	2
13	Inspectors	5) (1	ł	1 -	-
4	Carpenter Apprentice	60, 92	12	ı	10	1 0	8.
	. Apprentic	20, 9	12	ł	1 <	0 1	
10	C	22		i	5	0 1	1
	Manager	06, 010, 18		ı	-) I	1
	(Pip	55, 859	1 6 9	ı	lΜ	77	22
2.7	Purchasing Agent	0	1	1	1	ı	ı
34	Warehousing	882	2	H	-	-	* }
	TOTAL		138	0	25	91	22
	Maximum Estimate Minimum Estimate		159	00	22	105	25
1/ See Chap	See Chapter 2, Table 4.						

 $\frac{1}{2}$ / See Chapter 2, Table 4. $\frac{2}{3}$ / Based on Intermediate Estimate. $\frac{3}{3}$ / See Chapter 2, Table 3.

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

Appendix 15

POTENTIAL OFF-SITE TRANSPORTATION AND HANDLING JOBS DURING PERIOD OF MAJOR PIPE CONSTRUCTION AVAILABLE TO TERRITORIAL RESIDENTS

(Occupational Grouping and	Labour Skill Classification)

114	111001111		82	
Each Skill in Period	13 46 14 14 12 13	9 2	109	
in	44110111	14	16	
Jobs	11111111	0	00	crews
Total Jobs 2/ in Period	10 17 1 114 22 3	180	207 153	ight crews and tug Operators 520, 541) ight crews and tug housing 545, 547).
DIAND Manpower Survey Occupation Codes	510, 900 874, 876, 877, 520, 541 822 823, 545, 547 881, 882, 920 556 014, 212, 214 234			4/ Includes flight (Principal Opera 5/ Includes flight Labour/Warehousi
Summarized 0ccupational Group-	Foremen Principal Operators— Mechanics Mechanics Helper Labour/Warehousing= Truck Drivers Administrative Trainee Accountant Office Assistant	TOTAL	Maximum Estimate Minimum Estimate	iter 2, Table 4. Intermediate Estimate. iter 2, Table 3.
Pipeline Impact Study Code No.	12 26 18 17 17 23			$\frac{1}{2}$ / See Chapter $\frac{2}{3}$ / See Chapter

2 - 86

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

AND FACILITY CONSTRUCTION PERIOD AVAILABLE TO TERRITORIAL RESIDENTS POTENTIAL OFF-SITE TRANSPORTATION JOBS IN POST PIPE COMPRESSOR

(Occupational Grouping and Labour Skill Classification)

	ΙΛ	ı	1	1	ı	20	1	I	ı	2		87 02	m		
$\frac{11^{\frac{3}{d}}}{d}$						2					i	2	2	Н	
Each Skill ³ / in Period	III	2	2	1	1	14	2	П	1	1		21	24	18	
in	II	1	1	ı	1	ı	1	ı	1	ı	l		Н	Н	
Jobs	нί	1	ı	1	ŧ	1	1	ı	ı	1	}	0	0	0	
Total Jobs $\frac{2}{\ln Period}$		2	3	î	*	34	2	1	ı	1		42		36	light crews (520).
DIAND Manpower Survey Occupation Codes		•	520, 874, 876, 877	822	823	881, 882, 920		014, 212, 214	234	232					4/ Includes fl
Summarized Occupational Group 1/			Principal Operators"	Mechanics	Mechanics Helper	r/War	Truck Drivers	Administrative Trainee	Accountant	Office Assistant	} { {	TOTAL	Maximum Estimate	Minimum Estimate	cer 2, Table 4. Intermediate Estimate. cer 2, Table 3.
Pipeline Impact Study Code No.		12	26	80	19		∞	2		23					$\frac{1}{2}$ / See Chapter $\frac{2}{3}$ / See Chapter

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

Appendix 17

MAJOR PIPE CONSTRUCTION AVAILABLE TO TERRITORIAL RESIDENTS POTENTIAL CATERING AND CAMP OPERATING JOBS DURING PERIOD

(Occupational Grouping and Labour Skill Classification)

[3/	IV	1 1 1	126	1 m ~	197	227 168
h Skill Period	III	111	118	16	283	325
in Each	II	m m 9	6 4 .	3 7 4	28	32 24
Jobs Cla	ыl	1 1 1	1 1	1 1 1	0	00
Total Jobs $\frac{2}{}$ in Period		4 14 18	187 219	32 13 21	508	584
DIAND Manpower Survey Occupation Codes		006, 010 009, 014 413, 702	2 5 2	751 810, 830, 831, 838, 859 201, 203, 212, 214, 249		
Summarized 1/	2010	Manager Assistant Manager	00k 200k	Carpenters Other Trades Clerical	TOTAL	Maximum Estimate Minimum Estimate
pelin ct St	Code No.	22	7 14	3 24 23		Maxi Mini

2 - 88

1/ See Chapter 2, Table 4. 2/ Based on Intermediate Estimate. 3/ See Chapter 2, Table 3.

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

POTENTIAL CATERING AND CAMP OPERATING JOBS IN POST PIPE COMPRESSOR AND FACILITY CONSTRUCTION PERIOD AVAILABLE TO TERRITORIAL RESIDENTS

(Occupational Grouping and Labour Skill Classification)

						2 -	89		
11 ³ /	IV	1 1	1 4	10	ı	1 1	16	18	
Sach Skill- In Period	III	1 -	H 1-1 0	000	. 2 +		23	27	
in l	II	i i	н 1	ı	П	1 1]	2	2 2	
Jobs C1	ΗI	1 1	1 1	ı	ı		ı	00	
Total $Jobs^2/in$ Period		ι Η	2 1 5	18	ω -	1 -1	41	47	
DIAND Manpower Survey Occupation Codes		006, 010 009, 014	13, 702 15, 459, 92	, 454	831 838 85	10			
Summarized Occupational Group 1/		Manager Assistant Manager	Cooks Cooks Helper	Labour	Carpenters Other Trades		TOTAL	Maximum Estimate Minimum Estimate	
Pipeline Impact Study Code No.		22		14	3 24	23			

 $\frac{1}{2}$ / See Chapter 2, Table 4. $\frac{2}{3}$ / Based on Intermediate Estimate. $\frac{3}{3}$ / See Chapter 2, Table 3.

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

AND POTENTIAL OPERATION AND MAINTENANCE STAFF JOBS IN POST PIPE COMPRESSOR FACILITY CONSTRUCTION PERIOD AVAILABLE TO TERRITORIAL RESIDENTS

(Occupational Grouping and Labour Skill Classification)

7 6

17		11114	11011	2 7 5
h Skill Period	11141111	1111140	1101	23
in Each ass in P	1101441111	11-11	1411	0 1/2
Jobs	1 1 1 1 1 1 1 1 1 1		1 1 1 1 1	000
Total Jobs 2/ in Period	1101001111	1		32 37 27
DIAND Manpower Survey Occupation Codes	010, 102, 104, 109 102, 104, 109 198 006, 009 212, 232, 249 520 821 802	25 900	0 1 3, 834 4, 199, 51	
Summarized 0.0ccupational Group-	Managerial Engineering Technicians Administration Clerical Pilots Aircraft Mechanics Machinists	sing nt Operator nt Mechanic rivers	Labour (Operating and Maintenance) Plumbers Carpenters Station Operators Superintendents	TOTAL Maximum Estimate Minimum Estimate ter 2, Table 4.
Pipeline Impact Study Code No.	11 11 22 23 26 24	× 4 2 9 8 1 8	15 24 3 24 24	TO Ma Ma Mi J/ See Chapter

2 - 90

1/ See Chapter 2, Table 4. 2/ Based on Intermediate Estimate. 3/ See Chapter 2, Table 3.

Source: Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Townstantes Background namer, M.P.S. Associates and Unies Limited, May 1972

CONSTRUCTION CAPACITY OPERATION PERIOD AVAILABLE TO TERRITORIAL RESIDENTS OPERATION AND MAINTENANCE STAFF; POTENTIAL PERMANENT JOBS IN POST

(Occupational Grouping and Labour Skill Classification)

>1	2 - 91			
1113/		1 1 0 1	10	11 8
Each Skill ³ , in Period	1 1 1 1 9 1 1 1 1 1 1 1 1 1 9 1 1 1 1 9 1 1 1 1 1 9 1	1 4 6 1	35	30
in ass	116144111144411	I I	11	13
Jobs	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1	0	00
Total Jobs 2/ in Period	22 6 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	7 2 -	56	64
DIAND Manpower Survey Occupation Codes	010, 102, 104, 109 102, 104, 109 198 006, 009 212, 232, 249 520 821 802 008 882 851, 900 876 822 817 556	810 751 833, 834 104, 199, 510		
Summarized Occupational Group-/	Managerial Engineering Technicians Administration Clerical Pilots Aircraft Mechanics Machinists Purchasing Warehousing Foremen Equipment Operators Equipment Mechanics Welders Truck Drivers Labour (Operating and Maintenance)	Plumbers Carpenters Station Operators Superintendents	TOTAL	Maximum Estimate Minimum Estimate er 2. Table 4.
Pipeline Impact Study Code No.		24 24 24		Ma Mi 1/ See Chapter

1/ See Chapter 2, Table 4. 2/ Based on Intermediate Estimate. 3/ See Chapter 2, Table 3.

Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories, Background paper, M.P.S. Associates and Unies Limited, May 1972. Source:

17 Prints 20

N.W.T. SETTLEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS1/ ETHNIC ORIGIN AND

LOWER MACKENZIE

								_				
Region	Non- Native					-	4 0	۷ ر	7	9		m
Total	Native						г	- - -	11	18		
aktuk	Non- Native									0		
Tuktoyaktuk	Native							ı	_	7		
iver	Non- Native									0		
Arctic Red River	Native							•	m	m		
McPherson	Non- Native									0		
Ft. McP	Native	1										
vik	Non- Native									0		
Aklavík	Native	1						⊣	4	72		
는 본	Non- Native		Н				-1	2	2	9		m
Inuvik	Native								2	2		
		н								Group I	II	
		GROUP	101	102	153	563**	817**	851**	876**	TOTAL Group	GROUP	008

012 013 109 112

Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. 2, page 2-22 for occupations which apply 6, Chapter See Table Northern Manpower Survey Program. to the code numbers.

Indicates need for particular occupation in one or more of the succeeding skill groups. Occupations so marked are counted only once, the first time they occur; in other groups they are placed in brackets (). **

DIAND Mackenzie Manpower Survey, October 1, 1969-September 30, 1970, Table Source:

N.W.T. SETTLEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS 1, INVENTORY OF ETHNIC ORIGIN AND

	on		v e																							
	Region	Non-	Native	П		2		rO	3	18			2	11		5	5		2				n			
	Total	Native		Н	-	ı		2		20			Н	7		2	m		13	Н			1			
	Tuktoyaktuk	Native Non-			-					7				3					2							
E REGION	Red River	Native Non-																					1			
LOWER MACKENZIE	Ft. McPherson	Native Non-								2 1				Н												
	Aklavik	Native Non-	1	1						3				2					2							
	71K		Native	Н		2		5	n	1.7			5			5	5		2				m			
	Inuvik	Native						7		11				Н		2	3		6	1						
			GROUP II (cont'd)	149	183	188	196	198	199	212**	214**	221**	232**	413	428**	510	520	548	256**	557**	563 (Gp.1)	702	751	805	806	808

Statistics Canada and in the D.I.A.N.D. 2, page 2-22 for occupations which apply Skills are standard occupational classifications used by See Table 6, Chapter Survey Program. to the code numbers. Northern Manpower

groups. Occupations groups they are placed in Indicates need for particular occupation in one or more of the succeeding skill other they occur; in so marked are counted only once, the first time

* * DIAND Mackenzie Manpower Survey, October 1, 1969-September 30, 1970, Table Source:

Appendix 21 (cont'd)

MACKENZIE DISTRICT IMPACT CORRIDOR AND N.W.T. PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS1/ SETTLEMENT OF BY ETHNIC ORIGIN AND INVENTORY

REGION	Arctic
MACKENZIE	
LOWER	

					2	_ 9	94						
Total Region Native Non-			(1)	. 4	7	ന	2	(2)	ì	7	(6)	(7)	
Total R Native		Н		2		11		(1)	(1)	2	1	(11)	m
Tuktoyaktuk Native Non-				2		1					,	6	2
Red River Native Non-						т				1		(3)	
Ft. McPherson Native Non-		Н				5						(1)	п
Aklavík Native Non- Native				Н		1			(1)			(4)	
Non- Native			(1)	7 %		4 M	c	1	(2)	7		(2)	
Inuvik	(cont'd)					က				H		(2)	
	GROUP II (con	810	813 817 (Gp.1)	821	824**	831 833	835	00 00 00 00 00 00	851(Gp.1) 852**	855**	0 7 4 7 7 V V V V V V V V V V V V V V V V	876 (Gp.1)	900***

^{2,} page 2-22 for occupations which apply Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. 6, Chapter See Table Northern Manpower Survey Program. to the code numbers. 1

Indicates need for particular occupation in one or more of the succeeding skill groups. Occupations so marked are counted only once, the first time they occur; in other groups they are placed in brackets (). *

^{57.} Source: DIAND Mackenzie Manpower Survey, October 1, 1969-September 30, 1970, Table

N.W.T. BY ETHNIC ORIGIN AND SETTLEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS1/

LOWER MACKENZIE REGION

	al					:	2 - 9	5						
legion	Non- Native		8 4		17	Н	(18)	L	(2)	26	н к)	(2)	Н
Total Region	Native		72		2		(20)	,	3 (1)	10	7 7	1	(13)	4
aktuk	Non- Native		0											
Tuktoyaktuk	Native		15				(4)			3		4	(2)	
River	Non- Native		0											
Arctic Red Ri	Native		3											
herson	Non- Native		\vdash		2		(1)							
Ft. McPherson	Native		10		Н		(2)		Н					
귉	Non- Native				2				2	3				
Aklavik	Native N		11				(3)	(1)	T I	\vdash	00)	(2)	
	Non- Native		8 2		13	H	(17)	(5)	3 (2)	23	H r)	(2)	러
Inuvik	Native N	(1	33				(11)		-	9	r.C)	6)	
	41	GROUP II (cont'd)	TOTAL Group II	GROUP III	009	182**(Gp.11) 201 203	212(Gp.11) 214(Gp.11)	221(Gp.11)	234 234	249	405 4 15	459(Gp.11) 551	556(Gp.11) 557(Gp.11)	2694

²⁻²² for occupations which apply classifications used by Statistics Canada and in the D.I.A.N.D 2, page Chapter See Table 6, Northern Manpower Survey Program. Skills are standard occupational to the code numbers.

Occupations they occur; in other groups they are placed in Indicates need for particular occupation in one or more of the succeeding skill groups. so marked are counted only once, the first time brackets (). **

Source: DIAND Mackenzie Manpower Survey, October 1, 1969-September 30, 1970, Table 57

Appendix 21 (cont'd)

N.W.T. DISTRICT IMPACT CORRIDOR AND CONSTRUCTION/OPERATION-RELATED SKILLS1/ MACKENZIE SETTLEMENT, PIPELINE BY ETHNIC ORIGIN AND INVENTORY OF

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e) l					2 -	96				~~	~		
Region e Non-				H	(2)	F	$(\overline{2})$			13	2		A.N.D.
Total Native		∞			(1)		(11)	4		157	6	, t	ייין יין יין יין יין יין יין יין יין יי
Tuktoyaktuk Native Non-							(7)	7		26 26	c	7	Statistics Canada and in the Direning
Arctic Red River Native Non-		9					(3)			2 -1			by Statistics Ca
Ft. McPherson Native Non- Native							(1)			52	4		ifications used b
e Non- Native										2			class
Aklavik Native N		Н			(1)		(4)			41	n		pation
Non- Native				Н	(2)		1 (2)			11	,	2	rd occu
Inuvik	t'd)	H					(2)			3.6	ر د		מברמדם מ
	GROUP III (cont'd)	611 615** 760	820	824(Gp.11) 827	828 851(Gn.11.I)		859** 876(Gp.11,I)	877 (Gp.11) 878**	* * * 00 00 00 00	900(Gp.11) 920**	921	923	1/ chills are standard occupational

^{6,} Chapter 2, page 2-22 for occupations which apply See Table Program. Skills are standard occupational Northern Manpower Survey to the code numbers.

Source:

or more of the succeeding skill groups. Occupations other groups they are placed in DIAND Mackenzie Manpower Survey, October 1, 1969-September 30, 1970, Table 57 so marked are counted only once, the first time they occur; in Indicates need for particular occupation in one brackets (). *

N.W.T. BY ETHNIC ORIGIN AND SETTLEMENT, MACKENZIE DISTRIC IMPACT CORRIDOR AND INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS 1,

LOWER MACKENZIE REGION

n Ve					2 -	97		
Region Non-		252		E	92		(1)	
Total Region Native Non-		2 24 10 (3)	Н	7	282		(8)	(4)
aktuk Non- Native					0			
Tuktoyaktuk Native Non-		2 (2)			99			(4)
River e Non- Native					0			
Arctic Red Ri Native		m			12		(9)	
Rt. McPherson					7			
Ft. Mc Native		1 3 10 (1)		П	71			
ik Non- Native					6			
Aklavík Native N		М			58		(1)	
Non- Native		2 52 23		ന	81		(1)	
Inuvik	(cont'd)	13	-	5	I 75) II)	
	III (con	11)			Group II	IV	:.II, III III) III) :.I, III, III)	111)
	GROUP	924 925** 926** 928(Gp.	930 931	932	TOTAL G	GROUP I	459 (Gps. I 569 (Gp. I 615 (Gp. I 851 (Gps. I 878 (Gp. I 878	881 (Gp. II) 882 (Gp. II)

Skills are standard occupational classifications used by Statistics Canada ans in the DIAND Northern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply to the code numbers.

Occupations other groups they are placed in Indicates need for particular occupation in one or more of the succeeding skill groups. they occur; in are counted only once, the first time brackets (). so marked *

September 30, 1970, Table 1 DIAND Mackenzie Manpower Survey, October 1, 1969 Source:

Appendix 21 (cont'd)

MACKENZIE DISTRICT IMPACT CORRIDOR AND N.W.T. CONSTRUCTION/OPERATION-RELATES SKILLS1/ SETTLEMENT, PIPELINE BY ETHNIC ORIGIN AND INVENTORY OF

LOWER MACKENZIE REGION

			2 -	98
Non- Native		(13) (5) (2)	(24)	182
Total Region Native Non-		(157) (24) (10) (3)	(207)	372
ktuk Non- Native				0
Tuktoyaktuk Native Non-		(2)	(34)	∞ ∞
Red River ative Non-				0
Red Ri Native		(3)	(11)	18
McPherson ve Non- Native				m
Ft. Mcl		(52) (3) (10) (1)	(99)	8 2
ik Non- Native		(2)	(2)	10
Aklavik Native No		(41)	(97)	7.4
k Non- Native		(11) (5) (2)	(22)	169
Inuvik Native No	_	(36)	(20)	110
Z	GROUP IV (cont'd)	900(Gps.II, III) 920(Gp.III) 925(Gp.III) 926(Gp.III) 928(Gps.II, III) 929(Gp.III)	TOTAL Group IV	Total Groups I-III

Skills are standard occupational classifications used by Statistics Canada ans in the DIAND Northern 2, page 2-22 for occupations which apply to the See Table 6, chapter Manpower Survey Program. numbers.

Indicates need for particular occupation in one or more of the succeeding skill groups. Occupations are counted only once, the first time they occur; in other groups they are placed in so marked brackets

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table Source:

Appendix 21 (cont'd)

INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS \mathbb{L}^2 by ETHNIC ORIGIN AND SETTLEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND N.W.T.

					2)	,			
	egion	Non- Native		4 1	15 2 2	24		7 7	m
	Total Region	Native			19	20			
	ver	Native Non-		7 1	2 1 14	22		7 7	en en
	Hay River	Nativ			1 6	10			
	Trout Lake	Native							
	Trou	Non- Native							
Nahanni	Butte	Native Nor							
	1	Non- Na Native							
E REGIO Jean	Marie River	Native No			1				
ACKENZI		Non- Na Native							
UPPER MACKENZIE REGION Ft.	Wrigley	Native N			н	H			
	ence	Non- Native							
ъ t	Providence	Native			m	33			
	lard	Non- Native							
	Ft. Liard	Native							
Ft.	Simpson	Nativ				2			
	Sim	Native			r.	ις			
						\vdash			
						UP			
			нΙ			3RO	II		
			- 1		* * * *	7			
			GROUP	324579	563* 817** 851**	TOTAL GROUP	GROUP	8 1 7 8 6	1 5
			GR	066 101 102 104 105 153	0 0 0 0 0	TO	GR	008 011 012 013 109	112

Indicates need for particular occupation in one or more of the succeeding skill groups. Occupations so marked are counted only once, the first time they occur; in other groups they are placed in brackets (). Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Northern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply to the code numbers.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57. Source:

Appendix 21 (cont'd)

N.W.T. INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS $\frac{1}{2}$ ETHNIC ORIGIN AND SETTLEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND

			_	280				
Region /e Non- Native		1 0	13	24	20	7	18	17
Total Region Native Non- Nativ	Н	r-4		1	121	4	7	-1
I on- ative		н с	12	20	20	7	18	1 7
ke Hay River Non- Native N		Н		m			5	;
Native Non-								
Nahanni Butte Native Non-								
ive								
UPPER MACKENZIE REGION Ft. Jean Wrigley Marie Rive Native Non- Native Non e Native				2 1			H	
Providence Native Non-				1		П	н	
Ft. Liard Native Non-				1				
Non- Native				2 1	-	4		
Ft. Simpson Native No	nt'd)	1		4	F	4	•	-1
	GROUP II (cont'd)	149	183 196	198 199 212**	221**	413 459** 510	520 548 556**	557** 563(Gp.1) 702 751

Occupations so marked are counted Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Northern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply to the code numbers.

Indicates need for particular occupation in one or more of the succeeding skill groups. only once, the first time they occur; in other groups they are placed in brackets ().

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57.

W.T. Z AND PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS1, SETILEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR INVENTORY OF ETHNIC ORIGIN AND BY

CENTRAL MACKENZIE REGION

اه ا		2 - 101	
Total Region Native Non-	2	(2) 1 3 3 2 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	7
N N N			
Total R Native		H	
man Non-			
Ft. Norman			
Non- Native			-
Ft. Goo			
ωl			
Franklin ve Non-		н н	
d			
Ft. Fr.		H	
Non- Native			
ve N			
Colville Lake Native Non-			
(A N			
Wells Non-	2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Н
Norman Native d)			
No No (cont'd)			
		2 ?	
II di		4 69 ±	* & & * * * * * * * * * * * * * * * * *
GROUP	806 808 810 811	817 (Gp.1) 821 822 824** 831 833 835 835 838	8557 872 876 876 876

^{2,} page 2-22 for occupations which apply Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D See Table 6, chapter Survey Program. to the code numbers. Northern Manpower

Indicates need for particular occupation in one or more of the succeeding skill groups. Occupations other groups they are placed in so marked are counted only once, the first time they occur; in brackets (). * *

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57.

Appendix 21 (cont'd)

N.W.T. AND SKILLS1/ DISTRICT IMPACT CORRIDOR INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SETTLEMENT, MACKENZIE ETHNIC ORIGIN AND

CENTRAL MACKENZIE REGION

a) l				2 - 1	.02		
Region Non-			27	m	(3)	9	1 (2)
Total R Native		11	26		(6)	c	3 3 1 1 A 2 N 2 D 2
Norman ve Non-				Н		m	بر د بر
Ft. No Native		œ	6			Н	0 70 0 8
Native Non-			Н	Н		7	(1)
Ft. Goo Native			9		(4)	2	
Franklin ve Non-			∞	Н	(2)	Н	(1)
Ft. Fra		က	11		(5)		m .
Colville Lake Native Non-							
Norman Wells Native Non-	1)		18		(1)		(1)
z z	GROUP II (cont'd	900**	TOTAL Group II	GROUP III 009 014 182**(Cn II)	201 203 212(Gp.II) 214(Gp.II) 221(Gp.II)	232(Gp.II) 234 249	405 415 459(Gp.II) 551

Occupations 2-22 for occupations which apply Skills are standard occupational classifications used by Statistics Canada and in D.I.A.N.D. 2, page chapter See Table 6, Northern Manpower Survery Program. to the code numbers.

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57 Source:

are placed in Indicates need for particular occupation in one or more of the succeeding skill groups. other groups they they occur; in are counted only once, the first time brackets (). so marked *

SETTLEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND N.W.T. PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS1/ INVENTORY OF BY ETHNIC ORIGIN AND

CENTRAL MACKENZIE REGION

(cont'd) (1) (1) (1) (1) (2) (1) (3) (1) (1) (1) (3) (1) (1	(cont'd) (1) (1) (1) (2) (2) (1) (3) (1) (1) (1) (2) (1) (2) (1) (3) (1) (1) (3) (1) (1) (2) (1) (3) (1) (3) (1) (3) (1) (4) (5) (7) (1) (1) (2) (1) (3) (4) (5) (1) (5) (1) (1) (2) (1) (3) (4) (5) (5) (6) (7) (8) (9) (9) (1) (1) (1) (2) (3) (4) (5) (5) (6) (6) (6) (6) (7) (8) (9) (9) (1) (1) (1) (1) (2) (3) (4) (5) (5) (6) (6) (6) (6) (6) (6		Or	Wel	1vi11	ra	0	Or	Total Reg	Region
(1) (1) (2) (1) (3) (1) (1) (3) (1) (1) (3) (1) (1) (1) (2) (1) (1) (2) (1) (2) (1) (2) (2) (3) (4) (5) (1) (1) (2) (4) (5) (6) (7) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	(1) (1) (2) (1) (3) (1) (3) (1); 1) 1 1 23 24 9 67 1 s are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. ern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which annly		Native	Non- Nativ	Native Non-	Native Non-	Native Non-	Non	Native No	
(1) (2) (1) (3) (1) (1) (2) (1) (3) (1) (1) (2) (1) (1) (2) (1) (2) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	(1) (1) (2) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	III	ont'd)							
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	;); ;); ;); ;); ;); ;); ;); ;); ;); ;);	6(Gp.II) 7(Gp.II) 9**		(1)			(2)	(1)	(3)	(1)
); I) ;; I) ; 3 ; 1) 1 11 23 24 9 67 1	(1) (1) (2) (3) (3) (4) (67) (1) (5) (5) (67) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6	**						Н	H	
3 3 24 9 67 1	3 1 11 23 24 9 67 1 s are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. ern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply	+ (GP - LL)								2 - 1
3 1 11 23 24 9 67	3 1 11 23 24 9 67 s are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. ern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply	L(Gp.II,I) 2(Gp.II) 5(Gp.II) 5(Gp.II)								103
) 3 1 11 23 24 9 67) 1 11 23 24 9 67 .s are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. ern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply	(Gp.II,I) (Gp.II) 3**								
1 11 23 24 9 67	.) 1 11 23 24 9 Statistics Canada and in the D.I.A.N.D. ern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply	** (Cn TT)		3						3
	ational classifications used by Statistics Canad Program. See Table 6, chapter 2, page 2-22 for	· ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・		П	11	23	24	6	29	H

Indicates need for particular occupation in one or more of the succeeding skill groups. Occupations are counted only once, the first time they occur; in other groups they are placed in brackets (). so marked **

to the code numbers.

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57

Appendix 21 (cont'd)

N.W.T SETILEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS1/ AND BY ETHNIC ORIGIN

CENTRAL MACKENZIE REGION

		2 -	- 104	
Region Non- Native		\vdash	15	(2)
Total Native	2	(11)	76	(1)
Ft. Norman Native Non-			4	(1) (1) (1)
Ft. No Native	H	(8)	12	(1)
Native Non-			m	
Ft. Go Native	Н		27	
Ft. Franklin Native Non-			т	(1)
		(3)	26	
11e Lake Non- Native			0	
Colville Native N			11	
Wells Non- Native		Н	Ŋ	(1)
Norman	t'd)		0 I:	(:1)
	(cont'd	$\widehat{}$	III dno	II, III II) II) I, II, I II)
	UP III	** (Gp.II	AL Group	(Gp. I)
	GROUP 921 922	924 925* 926** 928(GP	931 932 TOTAL	GROUP 459 (G 569 (G 615 (G 851 (G 859 (G 878 (G

Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. 2, page 2-22 for occupations which apply Occupations 6, chapter See Table Northern Manpower Survey Program. to the code numbers. 1/

are placed in they occur; in other groups they of the succeeding skill groups. time Indicates need for occupation in one or more the first marked are counted only once, brackets () **

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57

SETTLEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND N.W.T INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS1, BY ETHNIC ORIGIN AND

CENTRAL MACKENZIE REGION

	Norm	Norman Wells	Colville Lake	Lake	Ft. Franklin	nklin	Ft. Good Hope	lope	Ft. Norman	an	Total Region	gion
	Native	ve Non- Native	Native No	Non- Native	Native	Non- Native	Native Non-	Non- Native	Native Non-	Non- Native	Native Non-	Non- Native
GROUP IV (cont'd)	(p,											
879												
881(Gp.III)												
882(Gp.III)		(3)										(3)
900(Gps.II, III	$\widehat{}$											•
920(Gps.III)		33	(11)		(23)		(24)		(6)		(67)	(1)
926 (Gp. III)		(+)										(1)
928(Gps.II, III) 929(Gp.III)					(3)				(8)		(11)	2
												2 -
TOTAL Group IV	0 4	(9)	(11)	0	(26)	(1)	(24)	0	(18)	0	(42)	105
TOTAL Groups												
III-I	0	25	11	0	37	11	33	4	21	4	102	77

See Table 6, chapter 2, page 2-22 for occupations which apply Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Northern Manpower Survey Program. to the code numbers. 1

Indicates need for particular occupation in one or more of the succeeding skill groups. Occupations so marked are counted only once, the first time they occur; in other groups they are placed in * *

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table

Appendix 21 (cont'd)

INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS 1 / BY ETHNIC ORIGIN AND SETTLEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND N.W.T.

. al						- 1	⋖	e	
Rion Non- Native	4	H	2 2 15	24		, ,			
N N N			1 6	0					vey
Total Region Native Non-			19	20					Sur
Non- Native	4	H	2 1 14	22		H	4	m	ower
ve N									Mani
Hay River Native Non- e			H 6	10					hern
TIVE I									Nort
Lake Na Na									-
Trout Lake Native Noi									NA
									۲-
Nat Nat									4
Nahanni Butte Native Non-									2 9
T LV e									Survey of the tent of the Northern Mannower Survey
ZIE REGION Jean Marie River Native Non-									
ZIE REG Jean Marie R Native			H	r	-4				
Z e									
UPPER MACKEN Ft. Wrigley Native Non-									
UPPER M. Wrigley Wrigley Native N			H	,	-				
le le									
Ft. Providence Native Native									
Ft. Providence Native Non			6	, .	m				
Pro Nat									
Non- Native									
Ft. Liard									
Natt.									
Non- Native			H =	4	7			,	
Ft. Simpso Native			u	n	5				
					I di				
	H				TOTAL GROUP I	H			
	GROUP I	5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	153 563* 817** 851**	× 0 / x	TAL	GROUP	008 011 012	013 109 112	1 1
	GR	066 101 102 104 105	153 563 817 851	00	I	5	000	0 11 1	-1

Occupations so marked are counted Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Northern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply to the code numbers. 1/

Indicates need for particular occupation in one or more of the succeeding skill groups. only once, the first time they occur; in other groups they are placed in brackets ().

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57.

Appendix 21 (cont'd)

INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS 1 / by Ethnic origin and Settlement, mackenzie district impact corridor and n.w.t.

						_		TO	/					
Ron	Native			ч	7	13	7 0	t V	20	5	7 7	18	•	7
Total Region			-	1			11	1	-	7 -	4	7	4	н
I	Native			Н.	7	12	00	9	20	4	7	18		1
Hay River				1			c)	Н	1		2		H
Ļ	Native													
Trout Lake Native Non-														
	Native													
Nahanni Butte Native Non-														
SION n River Non-	Native													
UPPER MACKENZIE REGION Ft. Wrigley Marie River ative Non- Native Non-														
							-	ı						
2							2					H		
Non-	Native													
Ft. Providence Native Non							F			H		-		
	2						1							
Ft. Liard							-4							
	Native					ч	2		1	-				
Ft. Simpson Native Non-		(p	7				4		,	-		-	l	
	,	(cont.												
		GROUP II (cont'd)	149	m 00	9	80 6	212**	214**	232**	413	000	556**	563(Gp.1)	-
		5	149	183	196	198	21	21	23	413	510 520 548	5 5	56	751

Occupations so marked are counted Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Northern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply to the code numbers. Indicates need for particular occupation in one or more of the succeeding skill groups. only once, the first time they occur; in other groups they are placed in brackets ().

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57.

Appendix 21 (cont'd)

INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS $\frac{1}{2}$ / by ethnic origin and settlements, mackenzie district impact corridor and n.W.T.

Occupations so marked are counted Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Northern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply to the code numbers. Indicates need for particular occupation in one or more of the succeeding skill groups. only once, the first time they occur; in other groups they are placed in brackets (). 1

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57. Source:

Appendix 21 (cont'd)

INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS 1 / C ORIGIN AND SETTLEMENT, MACKENZIE DISTRICT IMPACT CORRIDOR AND N.W.T. BY ETHNIC ORIGIN AND

		Total Region	Native Non-			2	143		9	17	(24)	(20)	35	11
		Total	Nativ		Н	00	39		Н	1	(11)	(1)	5	10
		ver	Non- Native			2	132		4	17	(20)	(20)	28	11
	;	Hay River	Native			9	19			1	(3)	(1)	€ ∺	4
		Lake	Non- Native				0							
		Trout Lake	Native				0							
		ار	Non- Native				0							•
	Nahanni	Butte	Native				0							
		lver	Non- Native				0							
ZIE REG	Jean	Marie River	Native				П							1
UPPER MACKENZIE REGION			Non- Native				2				(1)			
UPPER	五,	Wrigley	Native		H		7				(2)			
			Non- Native				0							
	in it	Providence	Native				ന				(1)			5 (1)
			0				H				(1)			
		rt. Llard	Native Non-			Н	2				(1)			
	Ľ	- 4	Non- Native				00		2		(2)		7 1	
	는 다. 1 다 () 2 0	Simpson	Native	_		⊢	10		Н		(4)		2	
	C	ام	Z	cont'd			II di		F	(1.				
				GROUP II (cont'd)	877**	928**	TOTAL Group II	GROUP III	0009	182~~(GP.11. 201 203	212 (Gp.II) 214 (Gp.II) 221 (Gp.II)	232(Gp.II) 234	249 405	415 459(Gp.II)

are counted Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Northern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply to the code numbers. Occupations so marked Indicates need for particular occupation in one or more of the succeeding skill groups. only once, the first time the occur; in other groups they are placed in brackets (). 1

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57

Appendix 21 (cont'd)

INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS $\frac{1}{2}$ by ethnic origin and settlement, mackenzie district impact corridor and n.W.T.

lve ve									(2)	9	
Total Region Native Non-	2	(7) (18) (1)		3 1	Н	Н	(1) (2)	(2	(19) (15)	(1)	rvey
9											er Su
Non- Native	C	(18)	ч	H	\leftarrow	П	(1)	(2)	(14)	9	anpow
Hay River Native Non-		(5)					(1)		(6)		thern M
Trout Lake Native Non-											N.D. Nor
Trou).I.A.
Nahanni Butte Native Non- Native											900(Gp.II) 900(in the D.I.A.N.D. Northern Manpower Survey (1)
i k											adaa
Jean Jean Marie R				2					(1)		stics Can
MACKEN Non- Native											Stati
Wrigley Native N		(1)							(1)		(1) used by
Providence W Native Non- N		(1)							^		ications
01									(3)		α α π
Liard e Non- Nativ											- c
Ft. Nativ				Н							4 0
Non- Nativ							,	(1)	(1)		ς ς τ
Ft. Simpson Native	(cont'd)		(1)						(5)		1 1 2 2 2
		(1	1)			(I		1,1)	1,1)		(I:
	GROUP III	551 556(Gp.I	557 (Gp.II)	611 615**	820	824 (Gp. I	828	851(Gp.II, I 852(Gp.II) 855(Gp.II)	859** 876(Gp.II,I) 877(Gp.II)	* * T 0 0 0	900(Gp.II)

Occupations so marked are counted Program. See Table 6, chapter 2, page 2-22 for occupations which apply to the code numbers. Indicates need for particular occupation in one or more of the succeeding skill groups. only once, the first time they occur; in other groups they are placed in brackets (). 1/ Skills are standard occupationa

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Toble 57.

Appendix 21 (cont'd)

INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS $\frac{1}{2}$ / by ethnic origin and settlement, mackenzie district impact corridor and n.w.t.

UPPER MACKENZIE REGION

	Ft. Simpson		Ft. Liard	Ft. Providence	Ft. Wrigley	Jean Marie River	Nahanni Butte	Trout Lake	Hay River		Total Region	gion
	Native	Non- Native	Native Non-	Native Non-	Native Non-	Native Non-	Native Non-	Native Non-	Native	n- tív	Native	Non- Native
GROUP III (cont'd)	nt'd)											
920**	17		1	14	12				31	13	75	13
923									4		-1	
925**	ſΛ								1 2	7 7	1 7	7 7
928(Gp.II) 929**	(1)		(1)						(9)	(2)	(8)	(2)
931 932												
()											Н	
TOTAL Group III	II 25	10	2	19	13	3			45	97	107	107
GROUP IV												
459(Gps.II, III) 569(Gp.III)	()			(1)							(1)	
615(Gp.III) 851(Gps.I,II,III)	(11)	(1)	(1)			(2)			(1)	999	(3)	233
1/ Skills are	standar	d pecul	pational cla	Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Northern Mannower Survey	used by Statia	stics Canada a	nd in the D.	I.A.N.D. North	hern Mann	Otto To	TVOV	

Occupations so marked are counted cs canada and in the D.I.A.N.D. Northern Manpower Survey Program. See Table 6, chapter 2, page 2-22 for occupations which apply to the code numbers. Indicates need for particular occupation in one or more of the succeeding skill groups. only once, the first time they occur; in other groups they are placed in brackets ().

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57. Source:

Appendix 21 (cont'd)

N.W.T. INVENTORY OF PIPELINE CONSTRUCTION/OPERATION-RELATED SKILLS $\underline{\mathbb{L}}/$ by ethnic origin and settlement, mackenzie district impact corribor and

Non- Native		(9)	(13)	(2)	(27)	274
Total Region Native Non-			(1) (75) (7)	(8)	(26) (96) (27)	166
		(9)	(13) (2) (2)	(2)	(26)	251
Hay River Native Non-			(31)	(9)	(40)	7.4
ake Non- Native			(31)		0	0
Trout Lake Native Non					0	0
Native					0	0
Nahanni Butte Native Non-					0	0
I ve					0	0
Jean Jean Marie R Native					(2)	īΩ
Z e					0	2
			(1)		(13)	18
Non- Native					0	0
Ft. Provide Native			(14)		(15)	25
ard Non- Native					0	г
Ft. Liard Native Non-			(1)	(1)	(3)	7
Non- Native					(1)	20
Ft. Simpson Native Non-	_		(17)	(1)	(23) (1)	40
Z	GROUP IV (cont'd)	859(Gp.III) 878(Gp.III) 879 881(Gp.III)	882(Gp.III) 900(Gps.II,III) 920(Gp.III)	925(Gp.111) 926(Gp.111) 928(Gps.11,111)	TOTAL Group IV	TOTAL Groups

Occupations so marked are counted Skills are standard occupational classifications used by Statistics Canada and in the D.I.A.N.D. Northern Manpower Survey Program. See T. ble 6, chapter 2, page 2-22 for occupations which apply to the code numbers. $\frac{1}{1}$

Indicates need for particular occupation in one or more of the succeeding skill groups. only once, the first time they occur; in other groups they are placed in brackets ().

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970, Table 57.

Appendix 22

DETAILED INVENTORY $\frac{1}{2}$ SELECTED OCCUPATIONS INDICATING GENERAL SKILL LEVELS OF RESIDENTS 14 YEARS OF AGE AND OVER BY ETHNIC ORIGIN AND SETTLEMENT WITHIN THE MACKENZIE IMPACT CORRIDOR, N.W.T.

		Total			00	26		2	7		7		7	ŀ	0		54	2			7	L	n				10
	egion		Native		2	23		2	7		7		0	ا	٧. ١)	9					c	n				2
	Total Region	Native	1		9	· (C)							0	1 4	7		1 8 7	2			7	0	1				00
	Tuktoyaktuk	Native Non-Native			2									2			0	7			7	ţ	4				ri
	Ft. McPherson	ve Non-Native				2																					
EGION	Ft.	Native			1									7			7										
LOWER MACKENZIE REGION Arctic	Red River	e Non-Native									O																
LOWER	Re	Native														7	-										
	Aklavík	Non-Native												1													
	AP	Native			2	3											12										3
	시	Non-Native			2	2.1		2	2		7		2		5		9					c					2
	Inuvik	Native			Н								2		7		20					-1					7
		Occupation	133	137	139	142	143	148	150	191	192	401	409	410	416	420	454	471	541	543	547	552	651	652	653	655	656

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970

 $\underline{1}$ / See Table 19, Chapter 2; page 2-58 for list of occupations

Appendix 22 (cont'd)

DETAILED INVENTORY $\frac{1}{2}$ OF SELECTED OCCUPATIONS INDICATING GENERAL LEVELS OF RESIDENTS 14 YEARS OF AGE AND OVER BY ETHNIC ORIGIN AND SETTLEMENT WITHIN THE MACKENZIE IMPACT CORRIDOR, N.W.T. LOWER MACKENZIE REGION

Total		139
		52
Total Region Native Non-		87
Tuktoyaktuk Native Non-Native		22 0
Ft. McPherson Native Non-Native		10 2
Arctic Red River Native Non-Native		2 0
Aklavík Natíve Non-Natíve		20 1
Inuvik Native Non-Native		33 49
Occupation	657 659 759 8310 8310 923	Total

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970

1/ See Table 19, Chapter 2; page 2-58 for list of occupations.

Appendix 22 (cont'd)

DETAILED INVENTORY! OF SELECTED OCCUPATIONS INDICATING GENERAL SKILL LEVELS OF RESIDENTS 14 YEARS OF AGE AND OVER BY ETHNIC ORIGIN AND SETTLEMENT WITHIN THE MACKENZIE IMPACT CORRIDOR, N.W.T. DETAILED INVENTORY 1/

		Total	3	1 2			₩.	7 80	٦ ۲	7						-
ı	L Region	Native Non-	4	2			,	7 7	0	1						-
	Total	Nativ	m	П			₩,	19	1 -	1 -						
	Fort Norman	Native Non-Native		1 2			,	5 1								
	PH O															
REGION	Ft. Good Hope	Native Non-Native	2				red r	⊣ ~	m							
	ш															
MACKE	anklin	Non-Native														
CENTRAL MACKENZIE	Fort Franklin	Native	7						7							
	k	ative														
	11e Lak	Non-Na														
	Colville	Native						-								
	n Wells	Non-Native		ĸ				1	2							1
	Norman	Native														
		no														
		Occupation	133	139	148	191	409	416	454	471	543	547	552 651	652	450	656

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970.

^{1/} See Table 19, Chapter 2, page 2-58 for list of occupations,

Appendix 22 (cont'd)

DETAILED INVENTORY 1 / OF SELECTED OCCUPATIONS INDICATING GENERAL SKILL LEVELS OF RESIDENTS 14 YEARS OF AGE AND OVER BY ETHNIC ORIGIN AND SETTLEMENT WITHIN THE MACKENZIE IMPACT CORRIDOR, N.W.T.

	Total		36	
	a)		11	
	Total Region Native Non-		2.5	
	Fort Norman Native Non-Native		4	
			9	
	Ft. Good Hope Native Non-Native		0	
REGION	Ft. Go		6	
CENTRAL MACKENZIE REGION	Fort Franklin Native Non-Native		0	
CE	, ke			
	Colville Lake		0	
	21		2	
	Norman Wells tive Non-Native		7	
	Norma		0	
	Occupation	657 658 659 759 819 830 871 883	Total	
	00		T	

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970.

 $\underline{1}$ / See Table 19, Chapter 2, page 2-58 for list of occupations.

Appendix 22 (cont'd)

DETAILED INVENTORY \pm 0 of selected occupations indicating general skill levels of residents 14 Years of age and over by ethnic origin and settlement within the mackenzie impact corribor, n.w.t. DETAILED INVENTORY1/

			Total		7	16	c	7		10	1 m	12	r.	7	ı	2		3	1		(00
		Total Region	Non- Native		П	16	c	7		П	m	7	2.5	7	2	7		П	Н		1	_
		Total	Native							6 -	1	5		2	ı	1		2			,	~
		ver	Non- Native		П	12	c	7		H	c	9		7	2	3		П	1		,	-1
		Hay River	Native							w	4	2	o	0 0				7				
	Nahanni	Butte	Native Non-																			
		River	Non- Na Native																		,	9
REGION	C	Marie R	Native N										_	4								
KENZIE		Wrigley	Non- Native										·	•								
UPPER MACKENZIE REGION		Ft. Wri	Native										-	4							1	-1
נ		idence	Non- Native																			
	FT.	Provid	Native							7			ľ)		П						
		Liard	Non- Native			Н																
		Ft. L	Native							Н			m)								
		Simpson	e Non-			3						1	2	ı		1						
		Ft. S	Nativ									2	7					1				
			tion																			
			Occupation	133	137	142	143	150	191	401	410	416	420	471	541	545	247	552	652	653	900	000

1/ See Table 19, Chapter 2, page 2-58 for list of occupations.

Source: DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970

Appendix 22 (cont'd)

DETAILED INVENTORY $\frac{1}{2}$ OF SELECTED OCCUPATIONS INDICATING GENERAL SKILL LEVELS OF RESIDENTS 14 YEARS OF AGE AND OVER BY ETHNIC ORIGIN AND SETTLEMENT WITHIN THE MACKENZIE IMPACT CORRIDOR, N.W.T.

To t a l	2	109
41		0.9
Total Region Native Non- Nativ	2	6 7
Non- Native		67 97
Hay River Native Non-	Ħ	19
Nahanni Butte Native Non- Native		0
Nahanni Butte Native N		0
E REGION Jean Marie River Native Non- Native		9
Jean Marie Native		П
UPPER MACKENZIE REGION Ft. Jean Wrigley Marie Ri Native Non- Native N e Native N		0
UPPER MAC Ft. Wrigley Native N		3
Vidence ve Non- Native		0
Pro		10
Ft. Liard ative Non- Native		Н
Z		4
Ft. Simpson Native Non- Native		7
Ft. Sim	Н	1.2
lon		
0ccupation 657 658 659 759	819 830 871 883	Total

DIAND Mackenzie Manpower Survey, October 1, 1969 - September 30, 1970. Source:

occupations. See Table 19, Chapter 2, page 2-58 for list of <u>_</u>

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Part 3

REQUIREMENTS TO ACHIEVE EXTENSIVE TERRITORIAL

RESIDENT EMPLOYMENT AND PARTICIPATION

IN PIPELINE AND OTHER DEVELOPMENT PROJECTS



Part 3

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CHAPTER 1

INTRODUCTION

Purpose

The foregoing parts of Volume 6 examined the population and labour force of the Mackenzie Impact Corridor in some detail, on the basis of material obtained from the D.I.A.N.D. Mackenzie Manpower Survey. The labour demands in terms of numbers and kinds of workers anticipated for pipeline and associated work are discussed, and the base year labour supply situation examined in relation to likely pipeline demands.

Certain special efforts will be required in order to involve territorial residents actively and effectively in pipeline work. The greatest proportion of all special programs will need to be concerned with the native population. Stepped-up education and training programs will be required. Special efforts will be required in connection with recruitment particularly of native workers as well as in ensuring that they will be able to cope not only with the actual work, but also with the total work situation.

Of particular concern are such aspects as training and recruitment costs, working conditions, e.g., hiring, work leave, travel, which will have associated costs. These costs must be identified as far as possible in advance of commencement of actual pipeline construction, since allowance must be made in government plans and budgets. Training needs and associated costs must be identified almost immediately, since training of a general nature, much of which involves accelerating existing programs, may begin at any time.

The purpose of Part 3 is the discussion of some of these aspects. Some of the requirements to achieve projected levels of territorial resident employment on the pipeline are identified. In general, Part 3 analyses and discusses those requirements necessary to employ the territorial labour force, particularly the native component, in pipeline construction and maintenance, and assesses the nature and cost of the required mobilization, training and related programs necessary to ensure maximum long-term benefits to the local labour force.



CHAPTER 2

BASIC EDUCATION AND TRAINING

Increased School Enrolment

In Chapter 2 of Part 1, the levels of basic education of the corridor population are discussed. Tables 7 and 8, Part 1, show that the native population had a generally lower level of education than the non-native population, and that there were relatively few native residents enrolled in the senior grades of high school.

In 1955, a major education program for the N.W.T. was launched by the federal government. Its objectives were: to provide sufficient facilities for enrolling all northern residents in school; to provide other types of training for those persons who were beyond normal school age, as well as those persons who had received elementary school education but were neither suited for nor inclined to take secondary school courses. As shown in Table 1, fairly rapid progress was made in the provision of school facilities throughout the N.W.T. Local elementary schools were established to serve nearly all territorial residents, with the exception of the very small settlements. Children from those small settlements which do not have elementary schools have been sent away to attend school in larger settlements, as have those children who have progressed beyond the level offered in their local school.

Enrolment of all school-age children, particularly of native children, has taken longer, but has nevertheless been almost completely achieved by now. Enrolment has grown rapidly over the years (Table 2), with native enrolment increasing steadily. After 1960, the education program was broadened considerably, and increased emphasis was placed on vacational and adult training programs. At present, however, there are still far more students in the elementary grades than there are in the secondary school grades (Tables 3, 4). The Mackenzie District, with its large non-native population, shows a relatively even distribution of pupils throughout both the elementary and secondary levels, in sharp contrast to the Arctic District, which has a higher proportion of native students than non-native students. The difference would also derive from the fact that the majority of the Mackenzie District native population had access to schools long before most Eastern Arctic natives. However, the representation in secondary school grades of even Mackenzie District natives has not been high in the past, as evident from the figures on N.W.T. Indian students in Table 5.

It is assumed that recruitment of native workers for the pipeline will be emphasized most strongly within the Impact Corridor, followed by recruitment from the Mackenzie District, with less emphasis placed on recruitment in the Eastern Arctic. It is important, therefore, to examine the educational background of the residents of these regions in order to assess the potential capabilities of the residents of these regions to work, and/or to take related training. Comparison of Tables 6, 7 and 8

Table 1

GROWTH OF SCHOOL FACILITIES IN THE NORTHWEST TERRITORIES 1949-50 - 1970-71

Total	*	*	-K	56	99	77	91	*	172	160	201	234	241	267	294	314	331	366	0	0 0	7
No. of Other Teachers	*	*	*	31	37	0 7	41	*	51	35	36	36	34	38	41	43	94	50	87		χ 9
No. of Government Teachers	*	*	*	25	27	37	50	*	121	125	165	198	207	229	253	271	285	316	3/8	2 1	455
Total	*	*	*	*	*	*	88	101	132	156	184	197	199	227	298	314	326	348	096	506	504
No. of Other Classrooms	*	*	*	*	*	*	39	42	38	37	29	29	30	36	51	43	67	67	\ C	70	55
No. of Government Classrooms	*	*	*	*	*	*	64	59	76	119	155	168	169	191	247	271	277	000	667	31/	677
Total Schools	22	27	28	28	29	29	31	37	39	67	50	27	46	50	50	7 2	J (C) L	ָר רָל לי	26	57
No. of 2/ Other Schools	6	0	, O	6	10		6	10	10	6	v 00) (r) ("	0 4	- 4	٠ ١٢	ן נג	٦ 4)	2	2
No. of 1—/ Government Schools		0 00	19	19	19	19	22	27	50	40	40	74	44	46	46	0 00	0 0	, 0 ,	N t	51	52
Year	19/9-50	70-5	951-5	952-5	953-5	954-5	955-5	956-	10	1058-50	1050-60	1979-00	1961-62	1962-63	1963-64	1067 6E	1904-05	1902-00	/9-996T	1967-68	1970-71

Accurate information not available.

×

Federal schools became territorial schools following 1968-69. 1/

 $\frac{2}{}$ Company, church, municipal schools.

Annual Reports, Department of Indian Affairs and Northern Development; Annual Reports, Government of the Northwest Territories. Source:

GROWTH OF PUPIL ENROLMENT BY ETHNIC ORIGIN IN SCHOOLS INSIDE THE
NORTHWEST TERRITORIES 1/1949-50 - 1970-71

Year Enrolment Enrolment	Enrolment	Enrolment
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	609 1,037 1,108 1,188 1,323 1,522 1,787 1,966 2,147 2,318 2,500 2,715 2,890 3,053 3,350 4,612	1,115 2,029 2,278 2,439 2,918 3,400 4,092 4,460 4,825 5,312 5,525 5,894 6,318 6,893 7,631 10,065

- Refers only to those pupils enrolled in schools inside the N.W.T. excluding attendance at Churchill Vocational Centre, Churchill, Man.
- 2/ Enrolment as of March 31 of second part of year period.
- $\underline{3}$ / Period of year to which statistics refer not known.
- 4/ Enrolment as of September 30 of first part of year period.

Source: Annual Reports, Department of Indian Affairs and Northern Development;
Annual Reports, Government of the Northwest Territories.

shows that for the Impact Corridor as a whole, enrolment among all population groups has increased significantly between 1964-65 and 1969-70 and 1970-71, as it has throughout the N.W.T. The number of students enrolled in academic upgrading courses has increased and there is some increase in the numbers of persons reaching secondary school levels. Unfortunately, the data does not allow a breakdown by grade according to ethnic origin. What is significant is that both in 1964-65 and 1969-70, in those settlements which are predominantly native, that is all corridor settlements except Hay River and Inuvik, very few students are enrolled beyond about grade 5. Additional data would be required to determine if students from these settlements have been sent elsewhere to school, even though the majority of the small settlement schools include, at least, grades 7 and 8. \(\frac{1}{2}\)

Whereas in the sample years, most schools in the Lower and Upper Mackenzie Regions were running at, near or beyond capacity, schools in the Central Mackenzie operated consistently below capacity.

It can be argued that at the present time and possibly for some time in the future, most young native residents do not need to acquire a full formal high school education; that concentration should be in the occupational and vocational fields to fit them for employment. The answer can only be made in the context of policy objectives, i.e., whether the intent is to find employment for as many native territorial residents as possible even if most of the work is in the unskilled or semi-skilled occupations; whether it is to attempt to place increasing numbers of native residents into government jobs, or in business at increasingly higher skill levels, or ideally, a combination of both approaches. For immediate projects such as the construction of the Mackenzie Highway, emphasis may be placed on trades training and general vocational and practical training, which will also pay dividends when construction of the pipeline begins. For placement of numbers of native residents in the pipeline operation and maintenance work force, however, it is highly likely that most native workers will remain at the lower or more general levels of work, largely in the semi-skilled classifications, until such time as more native residents attain higher formal educational levels.

Past efforts to keep students in school, at least up to senior high school level, have been somewhat frustrated by a number of factors. Many persons were too old when they began formal schooling, and, therefore, lost interest in remaining in school once they reached about age 16. Many persons left school to obtain jobs; still others left school, even without employment prospects, because they felt it useless to continue, particularly in those northern areas where employment opportunities were limited.

^{1/}The large enrolments at Hay River and Inuvik schools are partially due to the fact that students from surrounding small settlements are sent to these major centres for high school education and most other training, such as vocational; many students from the corridor settlements would also be enrolled in Yellowknife and Fort Smith, either in vocational courses or high school.

Table 3

CLASSIFICATION BY GRADE OF PUPILS ENROLLED IN ELEMENTARY GRADES IN SCHOOLS INSIDE THE NORTHWEST TERRITORIES 1963-64 - 1970-71

I Mackenzie District

Academic Year	Ī	II	<u>Er</u>	IV IV	by Grade	vI	VII	VIII	Total Elementary Enrolment
1963-64 1964-65 1965-66 1966-67 1967-68 1968-69 1969-70 1970-71	890 931 969 1,046 1,209 933 987 965	573 586 582 616 695 752 764 862	538 567 576 566 639 693 768 761	464 479 519 562 581 674 672 781	417 440 428 480 564 554 665 704	358 372 386 400 450 539 489 629	302 290 362 374 406 421 477 471	195 236 288 266 315 370 384 440	3,737 3,901 4,110 4,310 4,859 4,936 5,206 5,613 (6,161) 1/
II Arctic	District								
1963-64 1964-65 1965-66 1966-67 1967-68 1968-69 1970-71	501 556 538 687 551 615 513	212 260 251 254 317 340 387	185 166 227 273 262 258 373	109 114 153 217 235 252 288	73 74 76 117 141 200 227	34 30 40 57 98 123 179	12 6 10 21 27 35 103	9 3 6 8 8 16 46	1,135 1,209 1,301 1,634 1,639 1,839 2,116 (2,770) ¹ /

Source: Annual Reports, 1963-64 through 1970-71 Government of the Northwest Territories; records of Education Branch, Department of Indian Affairs and Northern Development.

^{1/} Including kindergarten and beginners' class enrolment.

Table 4

VOCATIONAL TRAINING COURSES IN SCHOOLS INSIDE THE NORTHWEST TERRITORIES CLASSIFICATION BY GRADE OF PUPILS ENROLLED IN SECONDARY, UNGRADED AND 1963-64 - 1970-71

Vocational Ungraded 19 19 35 247 446 Total 175 246 195 240 409 N/Av N/Av N/AV 66 Vocational Training 17 207 130 69 102 N/Av N/Av 0000 139 Ungraded Enrolment 19 19 35 230 239 44 107 191 110 30 307 N/Av N/Av Class OL Enrolment by Grade Enrolment Secondary 13 8 8 7 4 7 1 3 8 8 1 3 Total 536 646 667 779 846 965 1,068 0000000 103 106 112 140 168 189 192 XII 140 100001 105 129 158 160 XI 188 215 218 271 293 H H B 4 H L B 132 190 × 11723317 209 IX 186 221 264 264 Mackenzie District Arctic District 1968-69 1964-65 1965-66 1966-67 1967-68 1968-69 1970-71 Academic 1965-66 1969-70 1970-71 1963-64 1964-65 1966-67 1967-68 1963-64 Year

Annual Reports 1963-64 through 1970-71, Government of the Northwest Territories; Education Branch, Department of Indian Affairs and Northern Development Sources:

GROWTH OF ENROLMENT OF INDIAN PUPILS
IN ELEMENTARY, SECONDARY AND OTHER SCHOOLS
NORTHWEST TERRITORIES
1949-50 - 1965-66

School Year	Total 1/ Elementary Enrolment	Tota12/ Secondary Enrolment	Tota13/ Other Enrolment	Total University Enrolment	Tota <u>1</u> 4/ Ungraded Enrolment	Grand Total Enrolment
1949-50	644	7	_	_		(5 1
1950-51	667	22	_		-	651
1951-52		eport Not Av	ailable	_	-	689
1952-53	448	_	· · ·	_		1.1.0
1953-54	520	_			_	448
1954-55	645	7	_		-	520
1955-56	675	11		_	2	652
1956-57	646	12	29	_	40	688
1957-58	935	36	108	_	40	727
1958-59	987	16	78	_	_	1,079
1959-60	996	14	31	_	_	1,081
1960-61	990	16	_		61.	1,041
1961-62	1,046	30	26	_	64	1,070
1962-63	1,081	44	3	1	2	1,104
1963-64	1,027	58	68	1	30	1,159
1964-65	1,110	76			1	1,154
1965-66	1,113		n.s.	n.s.	n.s.	1,186
1705-00	T, 113	93	n.s.	n.s.	53	1,259

- 1/ Grades K VIII.
- 2/ Grades IX XII.
- 3/ Enrolment in specialized courses, vocational training, normal school, etc.
- $\underline{4}$ / Pupils primarily in academic upgrading courses, unassigned to a specific level.

Source: Annual Reports, Department of Citizenship and Immigration.

Table 6

ENROLMENT AND CLASSIFICATION OF PUPILS IN N.W.T. SCHOOLS BY ETHNIC ORIGIN FOR MACKENZIE IMPACT CORRIDOR SETTLEMENTS AND N.W.T. 1964-1965

9	21 23 2 2 2 213	14 2 6 22	46 2 7 7 197	252	735	1,222	1,271
Other 1e Female	214 167 22 21 20 23 6 2 262 213	10 2 10 22		298 582		1,397 l, 48	1,445 1,
atus Ot	77 21 118 77 0 0	53 8 8 11 72	109 1 27 8 8 9 9 9	180		648 1	648 1
Enrolment by Status Indian Le Male Female	67 7 13 1 47 7 2 2	36 7 11 54	73 1 6 21 12 7 7 111	147		599	599
Enrolme Female Ma	193 6 30 2 2 52 52 1		σ	6 9	134	420	1,023
Eskimo Male Fe	171 1 35 1 58 265 2		15	15	117	397	1,013 1
1		7 2	4 4	00	23 21	77	55
No. of Classrooms Regular lem. H.S. Sp.	11 8 1 3 2 3 1 2 15 13	н н	m œ		27	56	1 57
No. of Cl Regular Elem. H.	23 38 4 6 38	0 6 H 3 0	11 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	30	92	144	63
No. of Teachers	47 7 8 8 5 67	0 5 1 1 4 5	19 1 1 1 1 23	67	125	249	324
Capacity	700 150 200 125 1,175	50 100 50 50 50	350 25 60 60 25 25 25 480	066	2,415	4,895	1,475
School	Lower Mackenzie Region Inuvik Aklavik Ft. McPherson Tuktoyaktuk Total Region	Central Mackenzle Region Norman Wells Ft. Franklin Ft. Good Hope Ft. Norman Total Region	Upper Mackenzie Region Ft. Simpson Ft. Liard Ft. Providence Ft. Wrigley Jean Marie River Naharie Bluce	Total Region	Total Impact Corridor	Total Mackenzie District	Rest of N.W.T. Total N.W.T.

Special classrooms - activities other than straight classroom instruction.

1

Source: Education Branch. Department of Indian Affairs and Northern Development.

ENROLMENT AND CLASSIFICATION OF PUPILS IN N.W.T. SCHOOLS BY ETHNIC ORIGIN FOR MACKENZIE IMPACT CORRIDOR SETTLEMENTS AND N.W.T. 1964-1965

Table 6 (cont'd.)

				Enro	Enrolment	by	Grade	or	Class	ro l						
School	$Y.T.^{\frac{2}{2}}$	A.U.3/	П	7	m]	4	2	9	<u>~</u>	∞	0	10	11	12	Total	
Lower Mackenzie Region																
Inuvik Aklavik Ft. McPherson Tuktoyaktuk		39	189 36 26 35	99 13 27 21	106 20 24 24	77 16 24 7	82 24 17 12	70 15 20 7	50 11 18 4	38 4 14 10	26	35	25	23	889 139 170	
Total Region		39	286	160	174	124	135	112	83	99	56	35	25	23	1,318	
Central Mackenzie Region																
Norman Wells Ft. Franklin Ft. Good Hope Ft. Norman		17	2 11 3 13	2 7 4	21 1 9	17 2 5 5	3 63	3 4 2 2 3	1 4	1 3					24 89 19 38	
Total Region		21	29	18	38	29	12	14	2	4					170	
Upper Mackenzie Region																
Ft. Simpson Ft. Liard Ft. Providence Ft. Wrigley Jean Marie River Nahanni Butte Hay River		17	47 11 18 5 5 6 6	32 8 7 7 9 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	41 2 10 10 7 58	42 10 10 9 11 33	40 10 10 4	23 7 7 7 7 38	23	22 36	7 35	5 2	18		299 11 63 20 16 21 471	
Total Region		17	141	117	118	118	107	75	89	58	42	22	18		901	
Total Impact Corridor		77	456	295	330	271	254 2	201 1	156 1	128	86	57	43	23	2,389	
Total Balance of District	113	84	399	305	262	243	221 1	148 1	136	86	84	72	63	99	2,294	
Total Mackenzle District	113	161	855	009	592	514 4	475 3	349 2	292 2	226 1	82	129	901	89	4,683	
Rest of N.W.T.	105	157	359	278	197	122	54	29	7	3	2	2	П		1,316	
Total N.W.T.	218	318	1,214	878	789	636 5	529 3	378 2	299 2	229 18	184	131	107	68	5,999	

2/ Vocational Training.

3/ Academic upgrading.

ENROLMENT AND CLASSIFICATION OF PUPILS IN N.W.T. SCHOOLS BY ETHNIC ORIGIN FOR MACKENZIE IMPACT CORRIDOR SETTLEMENTS AND N.W.T. 1969-1970

Table 7

r emale	203 87 23 15 9	339		14 6 13 12	45		58 4	129 94 82	381	765	1,034	1,799
Other Male Female	221 95 32 26 2	382		21 8 10 22	61		79 2 20 20	130 93 80	707	847	1,265	2,112
Status ian Female	117 322 28 96 5	180		51 34 21	106		103 10 50 15 8	7 3 9	202	488	325	813
nt by St. Indian Male Fem	28 25 15 70 9	150		35 20 14	69		97 6 52 12	. o u	183	402	330	732
Enrolment by Status.mo Indian Female Male Female	127 69 53 77	326					15	9	18	344	301	645
Eskimo Male Fe	127 63 57 74	321					17		17	338	304	642
Sp.1/	L 44 4	19					7 1 3	1 5	12	31	47	78
H.S.	15 2	18		H	-		п п	ω ~	15	34	43	77
No. of Cl Regular Elem.	34 8 10 1	59		2428	11		10	1 6 .	35	105	108	213
No.of Teachers	42 25 11 10 1	96		N N N N	13		21 1 6	11 13 13	67	176	202	378
Capacity	820 400 250 200 25 175	1,870		50 150 50 75	325		350 25 150 50	300	1,295	3,490	3,955	7,445
School	Lower Mackenzie Region Inuvik Elem, Inuvik High Aklavik Ft, MCPherson Arctic Red River Tuktoyaktuk	Total Region	Central Mackenzie Region	Norman Wells Ft. Franklin Ft. Good Hope Ft. Norman	Total Region	Upper Mackenzie Region	Ft. Simpson Ft. Liard Ft. Providence Ft. Wrigley	Marie nni Bu River River	hay kiver sep. Total Region	Total Impact Corridor	Total Rest of Region	Total Mackenzie Region

 $[\]underline{1}/$ Special classrooms - activities other than straight classroom instruction.

Source: N.W.T. Department of Education, Yellowknife.

ENROLMENT AND CLASSIFICATION OF PUPILS IN N.W.T. SCHOOLS BY ETHNIC ORIGIN FOR MACKENZIE IMPACT CORRIDOR SETTLEMENTS AND N.W.T. 1969-1970

School	$V_{\bullet}T^{\frac{2}{4}}$	A.U.3/	-1	Er Er	rolme 3	Enrolment by		Class or 5	Grade 7	∞1	61	10	==	12	Total Enrolment
Lower Mackenzie Region Inuvik Elem. Inuvik High Aklavik Ft. McPherson Arctic Red River Tuktoyaktuk	10	119 21 20 18	145 41 38 6	1118 17 26 5	104 42 22 4 19	65 23 23 13	107 18 29 2 2	10 16 19 19	86 22 13 10	67 14 20 14	80	62	30	28	723 371 208 207 18
Total Region Central Mackenzie Region	10	178	263	186	191	125	181	110	131	115	88	62	30	28	1,698
Norman Wells Ft. Franklin Ft. Good Hope Ft. Norman		16	4 21 15 12	5 16 17 12	5 10 10	15 5 9	3 6 10 5	3 10 4 7	10	7 2					35 100 77 69
Total Region		23	52	50	07	37	24	24	22	σ					281
Upper Mackenzie Region															
Ft. Simpson Ft. Liard Ft. Providence Ft. Wrigley Jean Marie River Namanni Rutte		53 21	53 40 3	37 4 11 5	57 2 10 11 4	37 13 6	39 16 2	29 1 9	25	26	13				369 22 136 27 12
Hay River Elem. Hay River High Hay River Sep.		31	54	34	49	37	41 25	31	36	31	29	38	15	25	277 190 172
Total Region		130	193	109	152	121	124	82	91	73	52	38	15	25	1,205
Total Impact Corridor	10	331	208	345	383	283	329	216	244	197	140	100	45	53	3,184
Total Rest of Region	33	188	614	419	395	389	336	273	233	187	181	171	139	136	3,559
Total Mackenzie Region	43	519	987	764	778	672	665	489	477	384	321	271	184 1	189	6,743

2/ Vocational Training.

3/ Academic Upgrading.

Table 8

ENROLMENT AND CLASSIFICATION OF PUPILS IN N.W.T. SCHOOLS BY ETHNIC ORIGIN FOR MACKENZIE IMPACT CORRIDOR AND SETTLEMENTS AND N.W.T. 1970-1971

Special classrooms - activities other than straight classroom instruction.

Source: N.W.T. Department of Education, Yellowknife.

ENROLMENT AND CLASSIFICATION OF PUPILS IN N.W.T. SCHOOLS BY ETHNIC ORIGIN FOR MACKENZIE IMPACT CORRIDOR SETTLEMENTS AND N.W.T. 1970-1971

l			3-15					
Total Enrolment	767 413 218 210 210 14	1,800	43 123 84 60	310	404 24 153 37	243	1,339	3,449
Other 4/	60 20 38 17	135	27 17 7	51	20 4 15	58	26	283
12	25	25				27	27	52
111	47	47				22	22	69
10	73	73				50	50	123
9	06	06			14	37	51	141
Grac 8	15 15 11	118	9	13	10	55	87	218
7	82 14 17	124	4 14	18	31 8	52	16	233
by C1.	106 20 30	175	0 v 4 v	16	39 1 16 4	09	121	312
Enrolment by Class or Grade	67 26 24 13	131	5 11 10	41	40 11 14 6	70	136	308
Enr 4	123 38 23 23 12	198	13 9	35	28 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	89	148	381
2	124 20 16 4	179	3 14 9	41	67877	09	128	348
2	110 24 34 5	181	8 13 20 12	53	50 28 33	80	169	403
	125 42 23 2 61	253	111 14 9	42	73 45 7	65	202	497
A.U. 3/	52	71			10		10	81
V.T. 2/								
School	Lower Mackenzie Region Inuvik Elementary Inuvik High Aklavik Fort McPherson Arctic Red River Tuktoyaktuk	Total Region Central Mackenzie Region	Norman Wells Fort Franklin Fort Good Hope Fort Norman	Total Region Upper Mackenzie Region	Fort Simpson Fort Liard Fort Providence Fort Wrigley Jean Marie River	Hay River High Hay River Elementary	Total Region	Total Impact Corridor

^{2/} Vocational Training.

^{3/} Academic Upgrading.

Includes pre-kindergarten, kindergarten and preparatory classes for children beyond kindergarten age but who have never attended school. 14/

It is quite possible that more native students will remain longer in school when it becomes possible for them to obtain in their home areas or within the N.W.T. work for which they have been trained. In the meantime, jobs which require formal certification on completion of certain levels of high school or equivalent plus the requisite training will be closed to the majority of northern native residents. Similarly in the near future, only a few native residents will attain foremen positions or similar levels of work because large numbers of them lack the ability to express themselves in languages other than their own, or to read or write sufficiently to keep work sheets, accounts or any form of routine paper work.

The projected duration for pipeline construction is approximately nine years. _/ During this period, there should be a substantial increase in the general academic qualifications of territorial native residents. Continuation of the current basic education policies, under which residents are given every encouragement to attend school for the maximum length of time, should result in there being greater numbers of better educated native residents within 10 years' time. Given the need to establish priorities and allocate resources over the next few years, emphasis may better be placed on improving the skill qualifications of the existing territorial native work force and of those members of the population who are now leaving school and of those who will be leaving the school system over the next five years.

^{1/} See Volume 7.

CHAPTER 3

VOCATIONAL TRAINING

Objectives

One of the objectives of the comprehensive education program launched in 1955 for the N.W.T. was the development of out-of-school training and general education programs for young people beyond school age and adults who had had no previous exposure to formal education or training of any type. This objective gave rise to the Vocational Education Program and the Adult Education Program.

All vocational programs were designed to bring students to a level at which they could compete for skilled or semi-skilled jobs either in the North or in southern Canada. The apprentice training program for the Northwest Territories was instituted with the objective of bringing tradesmen to equipvalent provincial standards.

An important component of the vocational program was the establishment of training and employment selection and placement service. Selection and placement officers were located in headquarters and in the field to assist residents in matters of training and employment, to liaise with potential and actual employers and education authorities. 1

Expanded Vocational Training

The northern vocational program has grown rapidly. In fiscal year 1953-54, under 200 candidates were covered; in 1971-72, around 1,700 (Tables 9, 10) N. W. T. residents had taken training under the program. The number and variety of training courses offered has also expanded considerably. Appendices 1, 2, 3, contain information on the types of training offered, as well as the number of candidates receiving the training. Through a combination of programs offered by the N. W. T. Government at

^{1/} This function, upon transfer of the program to the N.W.T. Government, was also taken over by Continuing and Special Education, but was re-organized (1972) so that the employment placement function is now with the N.W.T. Department of Local Government. The importance attached to employment of northern residents may be deduced from the fact that there are now two territorial government departments and three federal government departments directly involved—Indian Affairs (Employment Liaison Program), Manpower and Immigration, and Labour.

schools within the Territory $\frac{1}{}$, in special programs both within and elsewhere, and at accredited institutions outside the Territory, the program covers candidates of all ages and backgrounds. It reaches those of school age, those leaving school and those who have left school. It is also accessible to physically handicapped persons.

An indication of the range of programs provided by the program may be obtained from study of the curriculum of the Adult Vocational Training Center at Fort Smith, (1971/72):

certified nursing assistants cooking heavy equipment operation pre-employment carpentry telecommunications

clerk-typist driver education heavy equipment mechanic pre-employment welding apprenticeship courses

These subjects call for candidates to attend for a minimum of a year. The trade training is supplemented with academic work, most of it oriented to the particular training involved. Academic upgrading for the various qualification processess is provided.

^{1/} Sir John Franklin School, Yellowknife; Hay River; Inuvik; Fort Smith Adult Vocational Training Center; Frobisher Bay; Rankin Inlet; special courses given in many other schools, plus on-the-job training taking place in nearly every N. W. T. community of any size.

6 Table

SUMMARY OF VOCATIONAL TRAINING PROGRAM FOR N.W.T. RESIDENTS BY ETHNIC ORIGIN

FISCAL YEARS 1953/54 - 1968/69

		1953/	1953/54 - 1961/62	1/62			1962/	1962/63 - 1968/69	69/89	
	Indian	Eskimo Na	Native	Other	Total	Indian	Eskimo	Native	Other	Total
Trained outside N.W.T., $\frac{1}{2}$ / 136	136	300	436 194	194	630	280	942	1,222		1,994
Trained within N.W.T.2/	184	272		133	589	637	1,040	1,677	959	2,333
Trained at Northern Vocation Center	:8:3/									
Sir John Franklin4/	195	159	354	123	477	620	930	1,550	621	2,171
Churchill Vocation Center 5/		Not	in oper	ation		i	188	188	1	188
All other 6/		Not	in oper	ation		89	73	141	51	192
ı	195	159	354	123	477	688	1,191	1,879	672	2,551
Grand Total	515	731	1,246 450	450	1,696	1,605	3,173	4,778	2,100	6,878

Within the N.W.T., but not in special schools, e.g., Sir John Franklin, Vocational School at Yellowknife. Excludes those listed as "trained within N.W.T." At institutions, special courses given by government departments, on-the-job situation by employers. 1/ At institutions, special courses given by government departments, on-the-job s. 2/ Within the N.W.T., but not in special schools, e.g., Sir John Franklin, Vocation 3/ Excludes those listed as "trained within N.W.T."

4/ Began operation in fiscal year 1958-59.

5/ Churchill, Manitoba, began operation in fiscal year.

5/ Churchill, Manitoba, began operation in fiscal year.

6/ Vocational occupational courses in schools at Inuvik, Fort Simpson, Hay River, Source: Education Branch, Department of Indian Affairs and Northern Development.

Vocational occupational courses in schools at Inuvik, Fort Simpson, Hay River, Fort Smith.

Table 10 Summary of enrolment in N. W. T. Vocational education program $\frac{1}{}$ by ethnic origin

FISCAL YEAR 1971/72

Eskimo Indian Other Total Training Within N. W. T. Full-Time in School 432 211 108 751 2 3 3 8 Correspondence Courses 65 316 427 Adult Evening Classes 46 Training-on-the-job 1 5 6 12 482 283 433 1,198 Total Training Outside N. W. T. 17 22 57 96 Alberta British Columbia 9 1 1 11 Manitoba 6 1 7 New Brunswick 1 1 9 2 Ontario 56 67 Ouebec 1 1 24 Saskatchewan 34 Total 112 32 73 217 Total in Training 594 315 506 1,415 Students Receiving Grants for Higher Education 109 Students Receiving Bursaries for Higher Education 10 Handicapped Persons 34 Apprentices 141 Grand Total of all Trainees under

1,709

Source: Annual Report, N. W. T. Government, 1971/72.

Continuing and Special Education

^{1/} Responsibility of the Continuing and Special Education Division, Department of Education, N. W. T. Government, Yellowknife.

Other N.W.T. schools, both regular day schools and special vocational schools, such as Sir John Franklin at Yellowknife, offer some of the same training and different types of training courses.

Training of one kind or another is available throughout the N. W. T., as well as at the major schools. Thus, nearly all N. W. T. residents have access to the vocational program (and, similarly, the adult education program). Table 11 gives a summary of the number of candidates taking vocational training, by their ethnic origin and their region of origin. Table 12 contains a breakdown by settlement of origin and ethnic origin of those students taking certain courses at the Adult Vocational Training Center at Fort Smith.

Apprenticeship Program

The apprenticeship program has always been an important part of the vocational program. While the number of N. W. T. residents in apprenticeships has never been high, it has increased steadily over the years. 1/ The increase, as with that in the basic school program and in the general vocational program, has been due to two primary factors: 1) candidates with better backgrounds in terms of preparation and age-relation to the program are being enrolled; 2) each year more students or trainees remain longer with the programs, i.e., the drop-out rate particularly among native candidates has tended to decrease over recent years.

Apprenticeships conform to provincial standards, and the training involves requisite amounts of theory course-work each year and direct work experience. A wide variety of trades is represented, e.g., electricians, motor mechanics, carpenters, plumbers, oil burner mechanics. Those individuals undergoing their apprenticeships may be placed in industry or within the N. W. T. Government or the federal government, working on a full-time basis and paid at a scaled level of the prevailing rate for the particular trade according to level attained. For the duration of the four-year apprenticeship, each candidate completes six to eight weeks of course work yearly.

As of mid-June, 1972, there were 160 persons registered as apprentices in the N. W. T., of which 51 (32 per cent), were of native origin. Of the total number, 66 (41 per cent) were employed with the territorial government, the remainder with private industry. Table 13 lists, by geographic location and ethnic origin, those currently registered as apprentices. Although information was available on the numbers of apprentices employed within the N. W. T. Government, none was available on those apprentices who were either working for private industry or were out of work. Certain assumptions may be made. For example, those apprentices in Pine Point are probably with Pine Point Mines Ltd.; those in Yellowknife and Hay River,

^{1/} See Appendices 1, 2, 3.

Table 11

ENROLMENT IN N.W.T. VOCATIONAL TRAINING PROCRAMS BY ADMINISTRATIVE REGION ETHNIC ORIGIN

	Still	Training	5 2 2 6	33
	gion	[otal	10 33 28	71
1	in Re	ther	Н	
	Keewatin Region	Eskimo (10 33 27	70
		Indian		
	Still	Total Training Indian Eskimo Other Total Training Indian Eskimo Other Total Training	13 1 10	24
	gion	Total	19 24 29	72
September 1971 - June 1972	Inuvik Region	Other	11 8 10	29
	Inu	Eskimo	998	20
	1/	Indian	2 10 11	23
	Still 1/	Training	132 5 67 79	283
	Region	Total	164 22 162 243	591
	Fort Smith	Other	139 10 98 66	313
	Fort	Indian Eskimo Other	8 35	130
		Indian	17 8 29 94	148
		Program	Apprenticeship Training-on-the-Job Vocational Outside N.W.T. Adult Vocational Training Center	Fort Smith $\frac{2}{2}$

1/1 Those still training as of June 1972. Remainder may have either completed training or dropped out. 2/1 See Table 12. Source: Continuing and Special Education Division, Department of Education, N.W.T. Government, Yellowknife.

Table 11 (cont'd.)

		hol									
	Still	Training	160	10	118		79			367	
. T.		\vdash			244					771	
Total N.W.T.		Other	151	18	109		99			344	
To		Eskimo	31	47	95		83			256	
		Indian	19	18	40		96			171	
1 /	Still =/	Training	9	2	19					27	
		Total	∞	4						37	
Baffin Region		Other	П								
Ba		Eskimo	7	4	25					36	
		Indian									
		Program	Apprentice	Training-on-the-job	Vocational Outside	N.W.T.	Adult Vocational	Training Centre,	Fort Smith 2/	Total	

1/1 Those still training as of June 1972. Remainder may have either completed training or dropped out. See Table 12. Source: Continuing and Special Education Division, Department of Education, N.W.T. Government, Yellowknife.

NUMBERS ENROLLED IN SELECTED COURSES IN ADULT VOCATIONAL

TRAINING CENTER AT FORT SMITH, BY SETTLEMENT, ETHNIC ORIGIN

JUNE, 1972

	Eskimo	Indian	Other	Total
Certified Nursing Ass't.				
Inuvík	_	-	2	2
Aklavik	-	1	-	1
Fort Good Hope	-		1	1
Fort Providence	-	_	1	1
Sub Total Impact Corridor	-	1	4	5
Fort Smith	-	-	3	3
Yellowknife	_	1	2	3
Sub Total Balance Mackenzie	_	1	5	6
Igloolik	1	-	-	1
Cape Dorset	1	-	_	1
Frobisher Bay	2	-	2	4
Sub Total Rest N. W. T.	4	-	2	6
Dropouts				2
Total N. W. T.	4	2	11	19
Clerk-Typist				
Fort Good Hope		_	1	1
Fort Wrigley	_	1		1
Norman Wells	_	1		1
Tuktoyaktuk	-	_	1	1
Fort McPherson	_	1	1	2
Sub Total Impact Corridor		3	3	6
Fort Smith		3	7	10
Yellowknife	-	1	_	1
Sub Total Balance Mackenzie	-	4	7	11
Frobisher Bay	1	_	-	1
Franklin Inlet	1	_	-	1
Sub Total Rest N. W. T.	2	-	-	2
Total N. W. T.	2	7	10	19

Source: Continuing and Special Education Division, N. W. T. Department of Education, Yellowknife.

Table 12 (cont'd.)

	Eskimo	Indian	Other	Total
Cooks				
Fort Simpson Hay River	-	1	_ 1	1 1
Sub Total Impact Corridor	-	1	1	2
Fort Smith	-	1	-	1
Sub Total Balance Mackenzie	-	1	-	1
Total N.W.T.	-	2	1	3
Heavy Equipment Operator				
Fort Norman Inuvik	-	1	1 1	1 2
Fort McPherson Fort Liard	-	1	1 -	1 1
Sub Total Impact Corridor	-	2	3	5
Yellowknife Fort Resolution Snowdrift Fort Smith	- - -	1 1 - 1	- 3 1	1 1 3 2
Sub Total Balance Mackenzie	-	3	4	7
Igloolik Coppermine Cambridge Whale Cove	1 1 1	- - -	- - -	1 1 1
Sub Total Rest of N.W.T.	4			4
Total N.W.T.	4	5	7	16
Heavy Equipment Mechanic				
Fort Simpson Fort Franklin Inuvik Fort Providence Fort Norman	- 1 -	- - - 1	1 1 - 1	1 1 1 1

Table 12 (cont'd.)

	Eskimo	Indian	Other	Total
Sub Total Impact Corridor	1	1	3	5
Rae	-	1	-	1
Sub Total Balance Mackenzie	-	1	_	1
Igloolik Whale Cove	1 1	<u>-</u> -	-	1 1
Sub Total Rest N.W.T.	2		-	2
Dropout				5
Total N.W.T.	3	2	3	13
Pre-Employment Carpenter				
Arctic Red River Fort Wrigley Hay River Inuvik	- - -	1 1 1	- - 1	1 1 1
Sub Total Impact Corridor	-	3	1	4
Fort Smith	-	1	1	2
Sub Total Balance Mackenzie	-	1	1	2
Cambridge	1	-	-	1
Sub Total Rest of N.W.T.	1	-	-	1
Total N.W.T.	1	4	2	7
Pre-Employment Welding				
Fort Providence Fort McPherson Inuvik Fort Simpson Aklavik Hay River	- - - -	3 1 - 1 1	- 1 2 2 - -	3 2 2 2 1 1
Sub Total Impact Corridor	-	6	5	11

Table 12 (cont'd.)

	Eskimo	Indian	Other	<u>Total</u>
Yellowknife Fort Smith	- -		2 2	2 2
Sub Total Balance Mackenzie	-	-	4	4
Total N.W.T.	_	6	9	15
Telecommunications				
Inuvik Fort Providence Fort Simpson Fort McPherson Hay River	- - - -	1 1 2 -	1 - - 2 1	1 1 1 4
Sub Total Impact Corridor	-	4	4	8
Fort Smith Yellowknife	- -	eliste.	3 5	3 5
Sub Total Balance Mackenzie		eno.	8	8
Frobisher Bay	-	-	2	2
Sub Total Rest of N.W.T.	_	-	2	2
Total N.W.T.	_	4	14	18

with private concerns; those at Echo Bay and Tungsten with the mining companies. The total number does, however, represent a small pool of skilled tradesmen who could conceivable obtain work on the pipeline. The actual level of employment would depend on what stage of apprenticeship had been reached and also on the level of jobs available in terms of the amount of direct pipeline experience which might be required as opposed to general relevant experience applicable to pipeline work. The question remains, however, as to how many of these individuals would go in search of work on the pipeline — a question pertaining to all of those territorial residents who are fully employed.

Other Types of Training Situation

The vocational education program accounts for a great deal of the total training of territorial residents, through the regular school system, the vocational schools, apprenticeships and employment placement with on-the-job training. It can be assumed that numbers of territorial residents not accounted for through this program are also receiving valuable training through on-the-job training in work situations. Since there are no adequate statistics available by which the numbers may be determined, it must be assumed that those persons who have employment are receiving some form of on-the-job training, whether formally structured or not. Information is difficult to obtain, particularly concerning employment by the private sector, and more particularly within those entities of the private sector who carry out largely seasonal work in the North, e.g., oil and mineral exploration operations. In some instances, such organizations hire local residents with the assistance of either the territorial or federal government. In some instances, they may hire directly on their own, particularly following the first year of operation during which they may have developed a good work team, or number of teams of local residents in any particular area. Because of this it can be assumed that more territorial residents than can now be accounted for through such media as out-of-date manpower surveys, various employment surveys, training course statistics, will be obtaining work experience quite relevant to pipeline work, and that many of these people will seek and obtain pipeline work on the basis of their past work with such companies. Until an intensive employment survey is done, however, it will be impossible to estimate with any degree of accuracy how many territorial residents could take work on the pipeline on the basis of their past work experience, and how many will require training.

A more formalized training situation of direct relevance to pipeline work is that undertaken by the Alberta Gas Trunk Line Company (A.G.T.L.) for the training of territorial residents. Some 25 candidates from the N.W.T. and Yukon were selected by the company on the basis of advertising and screening carried out by the territorial governments. Final selection was made of 23 candidates, three from the Yukon, 20 from the N.W.T., 90 per cent of whom were of native origin.

These candidates went out to company training facilities at Rainbow Lake and Rocky Mountain House, and for six months were trained with salary. At the end of the six months, those who were willing and suitable candidates became full-time employees of the company, able to choose the trade they preferred and to carry on with combined training-work situation. As of mid-summer 1972, the program was in its second successful year. The attrition rate has been extremely low and overwhelming majority of the original candidates are still employed by the company. Obviously these people will be qualified for pipeline work; if successful as employees generally, they will also have continuing work with the company if they so choose throughout and after pipeline construction.

The number of persons involved is small, but the intent behind the A.G.T.L. program is the important factor - the willingness of a company to attempt such a program. Success could inspire other companies to try similar ventures. More importantly this particular program could give rise to a joint government-industry program aimed at providing training and employment to territorial residents on a more organized basis than is currently the case.

It is difficult at the present time to know how many persons to train for what work, and when to begin the training. There is little concrete knowledge of the numbers of jobs likely to be available in pipeline construction, and little specific information exists on the nature of many of the jobs, whether skilled, semi-skilled or unskilled. This creates planning and budgetary problems. Because of the high cost of the training programs alone, priorities will have to be set and resources adequately allocated so that training will not be curtailed for lack of funds.

Table 13

APPRENTICES REGISTERED IN N.W.T. BY SETTLEMENT AND ETHNIC ORIGIN AS OF JUNE, 1972

	AND ETHNIC	URIGIN AS	OF JONE	, 1)/2	Millionia or
			Number		No Employed
		Total	ar		No. Employed
Settlement		Number	Indian	Eskimo	by N.W.T.
					2.1
Fort Smith		27	12	-	24
Pine Point		21	-	-	_
Yellowknife		51	3	_	9
Edzo		1	1	-	-
Rae		1	1	-	_
Enterprise		3	-	_	3
Tungsten		1	_	_	-
Echo Bay		1	-	-	_
Spence Bay		1	-	1	-
Cambridge Bay		6	_	6	6
Cambi luge buy					
Sub Total Rest of					
Mackenzie Distri	ct	113	17	7	42
Mackenzie Distri					
Har Pivor		15	2	-	2
Hay River		4	3	_	3
Fort Simpson		1	_	_	-
Fort Norman		1	1	_	1
Fort Good Hope		1	1	_	_
Fort McPherson			_	6	7
Inuvik		10		6	
Sub Total Impact		2.0	7	6	13
Corridor		32	/	O	10
		7		6	3
Frobisher Bay		7	_	2	2
Igloolik		2	_		
Churchill		2	_	2	2 2
Baker Lake		2	-	2	2
Rankin Inlet		_2		2	2
Sub Total Rest of	N.W.T.	15		14	11
Total N.W.T.		160	24	27	66

Source: Continuing and Special Education Division, N.W.T. Department of Education, Yellowknife.

CHAPTER 4

EDUCATION AND TRAINING COSTS

Total Basic Costs

Education costs are extremely high in the North. The basic cost of building, operation and maintenance, payment of teachers' salaries for the total education program, including the vocational and adult programs for the N.W.T., have run into millions of dollars. Table 14 contains expenditures for both the federal and territorial programs in the N.W.T. for the period 1956-57 through 1966-67. In 1966-67, the federal government alone spent nearly \$13,000,000; together the two levels of government spent over \$15,000,000. On an estimated total enrolment, including vocational trainees, of 7,400, that total expenditure figure represented a per capita expenditure of over \$2,000. The particular 10-year period represented in Table 14 may be considered as a period of rapid expansion and development of the basic school system and total education program. It was a period during which many new schools were built and others expanded in size, and during which the vocational and adult education programs were considerably expanded.

While some decline in expenditures might be presumed since that time, this in fact has not happened. Programs have expanded to meet the growing population and rising enrolments. The total operation and maintenance expenditure on education by the N.W.T. Government in the fiscal year 1969-70 alone was in excess of \$7,000,000. This does not include a capital expenditures. Furthermore, it does not represent the total figure spent on education and training of N.W.T. residents since it does not include money spent by the federal government through the Departments of Manpower and Immigration, and Indian Affairs and Northern Development.

Vocational Training Costs

An indication of costs associated with vocational training may be obtained from the following table:

EDUCATION EXPENDITURES IN N.W.T., 1956/57 - 1966/67

Table 14

	Expenditures on Education Programs By Federal Government	Education Progr Government	ams	Expenditu By Northwo	Expenditures on Education Programs By Northwest Territories Government	on Programs Government
Fiscal	Operation and Maintenance	Capital	Total	Operation and Maintenance	Capital	Total
1956-57	\$1,173,983	\$1.751.239	\$2,925,222	\$ 148,817	\$ 222,130	\$ 370,947
195758	1 994 999	5,036,987	7,031,986	316,471	502,571	819,042
1958-59	2,424,120	5,049,486	7,473,606	449,640	721,482	1,171,122
1959-60	3, 793, 361	3,910,314	7,703,675	649,031	87,925	736,956
1960-61	4 696 725	2,240,514	6,937,239	768,513	122,968	891,481
1961-62	5,393,140	1,601,884	6,995,024	985,712	267,359	1,253,071
1962-63	5,639,133	2,142,614	7,781,747	1,391,058	369,068	1,760,126
1963-64	6 085 744	1,152,528	7,238,272	1,488,895	59,365	1,548,260
1067-65	7 010 912	921,175	7,932,087	1,686,727	193,638	1,880,365
1965-66	7 080 1/7	7 743 441	10,225,585	1,845,746	943,151	2,788,897
1966-67	8,613,000	3,887,000	12,500,000	1,867,349	1,082,869	2,950,218

Inter-departmental Committee on Federal-Territorial Financial Relations - Report on the Records of Education Branch, Department of Indian Affairs and Northern Development. 1961-67 - Annual Reports, Government of the Northwest Territories Northwest Territories, 1957, 1962. Sources:

Table 15

COSTS ASSOCIATED WITH SELECTED VOCATIONAL TRAINING COURSES GIVEN AT THE FORT SMITH N.W.T. ADULT VOCATIONAL CENTER FOR THE FISCAL YEAR 1971-72

Course	Total Cost 1/	No. of Students	Average Cost
Certified Nursing Assistant	\$27,997	19	\$1,474.00
Clerk-Typist	13,881	19	731.00
Cooking	1,368	3	456.00
Heavy Equipment Operator	38,212	16	2,388.00
Heavy Equipment Mechanic	15,906	14	1,136.00
Pre-Employment Carpentry	27,739	7	3,963.00
Pre-Employment Welding	24,833	15	1,656.00
Telecommunications	32,644	18	1,814.00
TOTAL	\$182,580	111	\$1,645.00

Source: Continuing and Special Education Division, N.W.T. Department of Education, Yellowknife.

In addition to the cost of purchasing space in Department of Manpower and Immigration courses for each candidate, costs shown for the courses in table 15 comprise the following for each candidate: $^2/$

Travel - \$250.00 per person (average)
Training allowance, based on following rates:

	U			· · · · · · · · · · · · · · · · · · ·	0			
Single p	persons					\$47.00	per	week
						(0.00		- 1
Married	persons	-	1	dependent		62.00	per	week
	-		-			70 00		1
Married	nergons	_	-7	dependents		72.00	per	week
HULLICG	Persons		4	dependence			-	
37 1			2	A A A		82.00	70.00	*** 0 0 12
married	persons	_	0	dependents		02.00	her	Week
	-			•		00.00	-	
Marriad	narcone	-	/,	or more dependents		88.00	ner	WEEK
married	hersons		-	or more dependents		00.00	PCI	11 0020

For married persons away from their homes on courses the allowance includes an additional cost of \$30.00 per week for maintenance of dependents at home.

^{1/} Includes costs of travel of students to and from the course and cost of purchasing space in each program from the Department of Manpower and Immigration.

^{2/} Canada Manpower rates.

3-34

The courses shown in Table 15 are those for which the N.W.T. Government made recoveries from Canada Manpower (Department of Manpower and Immigration). The total recoveries for the fiscal year 1971-72 totalled \$349.000 and included in addition to the previously listed courses \$145,400 for Basic Training for Skill Development (B.T.S.D) courses \$4,000 for guide training, \$5,800 for introductory business administration, \$1,300 for food services/handling, \$1,500 for mineral identification training, \$500 for rod and chain surveying training.

The total figure represents only a portion of the total outlay on vocational training of N.W.T. residents. One of the largest expenditures in the vocational program is the apprenticeship program. For 1971-72, the apprenticeship program cost a total of \$351,000. For the 155 active apprentices, i.e., those actively involved to the extent of continuing their theory courses, the average cost was \$2,264.00. Just over \$12,000 dollars of the total is made up of costs of travel of the apprentices to their theory courses, and of the cost of the theory training. The total expenditure figure does, however, include the salaries of those apprentices who are employees of the N.W.T. Government, at an average salary of \$6,000.00.

In short, training for pipeline work or any form of employment is extremely costly. Whether projected on constant dollar figures or according to an inflation factor, extensive training programs will be very expensive. 1/ To meet the anticipated labour demands of the pipeline and of related activities, and of the communities 2/ during the pipeline construction period large numbers of workers will be required, many of whom will need extensive training and others who will need only some training. Obviously, enormous financial outlays will be required to meet the basic costs of provision of facilities and equipment for training in various skills and trades, as well as costs of teaching and supervisory staff for those training programs conducted within the N.W.T. Additional costs will arise for the out-of-N.W.T portion of the total training budget for those candidates sent to accredited institutions or to special courses such as those run by the Department of Defence, outside the N.W.T.

Possible Methods of Training

There are a number of courses which would provide training for N.W.T. residents for pipeline work. The facilities within the N.W.T. could be expanded, e.g., the vocational centers such as the Fort Smith training center. Special training camps designed to provide training in the particular pipeline occupations could be established. 3/ These could be concentrated in key areas, such as the Impact Centers of Fort Simpson, Norman Wells and Inuvik, possibly being quite large, or smaller camps could be established throughout the MacKenzie District, with some also being placed in strategic parts of the Central and Eastern Arctic. Arrangements could be made with government bodies outside the N.W.T., e.g. federal government or provincial government institutions or programs. Possibly arrangements could be made with the actual industry for establishment of training programs and facilities within or outside the N.W.T.

^{1/} See Volume 7.

 $[\]frac{2}{3}$ / See Volume 4. $\frac{3}{5}$ / See Appendix 4 for discussion of planning a training camp at Norman Wells, below, pp. 3-66 - 3-70.

Some combination of the foregoing possible courses of action with respect to training will most likely develop. The ideal approach would be to allow trainees to train under curcumstances and conditions most closely approaching those likely to be met in actual pipeline work, e.g., rotation patterns, camp living. While the initial cost might be high, particularly of any program calling for rotation of the candidates between the training camp and their home, for example, such an approach might pay dividends later in terms of travel costs for replacement workers. That is, potential pipeline workers, training under conditions closely simulating those likely to be encountered in actual pipeline work, may receive less shock on the job than if trained in their home communities or at a vocational center. Although, the risk is that many trainees will not like the work, it would be more satisfactory to find this out during training rather than after commitments have been made.

The development of suitable training programs will be essential. The effects will be felt not only in connection with pipeline construction, but also in any other development projects which might occur during or after completion of the pipeline. If pipeline building becomes a continuous process, that is, if the oil and gas potential of the N.W.T. is proven to the extent that additional pipelines are built or the existing one expanded, the training undergone for the first experience, together with the actual work experience gained by workers on the initial pipeline, if successful, should result in the development of an experienced pipeline work force of territorial residents capable and ready to continue the work on other pipelines in other places within the North, and possibly elsewhere. By the same token, there should be dividends for any workers who have taken the training, whether or not they remain in pipeline work, since they would then be adequately prepared for work within their home areas. Thus, it is not only the training which is of importance, but also the experiences undergone while employed with the pipeline workforce which are important to the future development of the territorial work force in general and to the native component in particular.

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Chapter 5

Mobilization of the Territorial Work Force for Pipeline Work

Trial and Error

Construction of the DEWLine during the 1950's marked the first concentrated efforts on the part of the federal government to train native northern residents for specific employment. Following the major period of DEWLine construction, the vocational training program and its attendant employment placement function continued to expand, but no set or clearly defined policies for employment of native northerners developed for some time.

The lack of a specific employment policy, scarcity of funds, and shortage of staff hindered native employment placement programs for many years. One of the most serious handicaps was the lack of information on the population and labour force. Many opportunities for the training and placement of native residents were lost through government's inability to quickly mobilize potential workers. Many native residents who had had training suitable for placement became difficult to locate after they had completed training, largely due to the lack of some sort of information system designed to keep track of people. Officials might work hard to convince a potential employer to hire Eskimos or Indians, and then have difficulties in locating potential employees. Furthermore, because of the lack of a sound information system, there was seldom any reliable information on candidates. This often resulted in the selection of unsuitable persons for training or employment and made the selection process a trial and error one.

In many instances, where native workers were placed on the job, particularly in the North, difficulties were experienced in retaining them because there were no counselling services. Counselling and advisory services existed for those northern indigenes who came to the provinces for training courses; for many years, such services were poorly developed for those who came south for jobs, almost non-existent for those employed in the North.

Employment programs for native northern residents were rendered undeveloped and ineffective because of undefined objectives with respect to overall northern development policies. For many years, for example, no connection existed between vocational training and employment placement programs and programs for non-renewable resource exploration and development. Responsibility for all employment placement rested within the education program and was tied to the vocational education program. There was, however, often lack of communication between the development program authorities and those responsible for employment training and placement. Furthermore, the employment training and placement program suffered from lack of clear definition of objectives with respect to the types of employment - whether emphasis should be placed on long-term, short-term, skilled, unskilled, and semi-skilled employment.

Part of the overall problem can also be attributed to the fact that efforts to increase northern employment, particularly of native residents, had to be pursued carefully in order to avoid conflicts with labour code specifications concerning discrimination on the basis of race, colour or creed. All-out drives to increase the numbers of native workers could be construed as a form of reverse discrimination. The perennial problem of qualifications of the native residents for government jobs or jobs in private companies existed then as it does now, coupled with the persistent beliefs of potential employers that Indian or Eskimo workers were unreliable, could not cope with work conditions familiar to southern Canadians, preferred to hunt and trap rather than work, could not learn to do skilled work. These factors coupled with the lack of definition of clear-cut policies with respect to employment of northern native residents had one inevitable result - the majority of the northern native working age population was able to obtain only short-term employment, e.g., DEWLine construction; summer construction projects in communities; road building projects; fire-fighting. The largest part of the native work force having full-time employment, were those employed in unskilled or semi-skilled jobs, primarily with the government.

In the late 1960's, the vocational training program had expanded considerably and the employment placement aspect grew in importance. Not until 1969 however, was there any real co-operation between these programs and departmental development programs, at which time the Department of Indian Affairs and Northern Development established its employment liaison program. This program was intended to concentrate on the employment of northern residents in the mineral and oil industries, and employers were to be encouraged to provide employment opportunities; the federal government and the territorial government would then co-operate in finding candidates and assuring suitable training. Contracts were to be negotiated between companies and the governments concerning the employment of and on-the-job training opportunities for northern residents. To date, agreements have been negotiated between the governments and two major mining development projects. The principles behind the agreements and the motives of the involved parties have been of the highest order. The actual agreements and the procedures used for their preparation and the recruitment of the employees have been under study in order that improvements might be made in some areas which would increase their effectiveness.

Conflicts

The employment liaison program has broken new ground in that one of its primary objectives, to inform industry of the availability of local resident labour in the North and to encourage use of that labour, has borne some fruit in recent years, particularly in the oil exploration field. However, this particular program introduced yet one more authority in the crowded field of northern resident employment placement.

In 1967, the N.W.T. Government headquarters was established in Yellowknife and began taking up the responsibilities transferred to it from the federal government in the fields of education, social welfare, essentially all programs except some of those concerned with resources. In the same year, the federal Department of Manpower and Immigration extended its operations to the North for the first time, opening an office in Hay River. By April 1, 1970, the territorial government had assumed all its present responsibilities throughout the N.W.T., the Department of Manpower and Immigration was expanding its N.W.T. operations, and the Department of Indian Affairs and Northern Development had initiated its employment liaison program. This introduced three different authorities, all concerned with one particular objective: the employment of northern residents.

Introduction of Canada Manpower programs to the North has been beneficial in that it has given the territorial governments access to training programs not previously available to northern residents, either due to lack of funds, to lack of course allocations, for territorial residents or to lack of adequate qualifications on the part of the territorial residents. In terms of training, the programs of the territorial governments and the Department of Manpower have worked together reasonably effectively; the Department of Indian Affairs has not been actively concerned with the actual vocational programs in the territories. With respect to recruitment and placement of northern residents in jobs, certain problems have arisen, largely due to lack of communication, and partly because of apparent conflicts of interest between the three agencies.

During summer, 1972, actions were taken to clear up certain areas of conflict. The N.W.T. Government removed the primary responsibility for employment placement from the vocational education program and created a specific bureau to handle employment matters within the Department of Local Government. The federal Department of Manpower and Immigration extended its operations still further within the N.W.T. It also assumed primary responsibility for any federal activities in the field of employment placement in connection with such major projects as the construction of the Mackenzie Highway. Questions which still remain to be answered, however, are: how is recruitment of northern residents to be handled for the construction of the pipeline; what agency, or agencies, will assume not only the primary responsibility for recruitment, training and counselling arrangements for northern residents, but also carry out the actual work on the ground.

Recruitment for Pipeline Work

One continuing program with employment placement of native residents, particularly in jobs away from their home communities, has been to keep workers on the job. Potential workers often have not had a clear picture of what the jobs entailed, what conditions prevailed, how far away from home the job might be, or how long the job would last.

Another problem of employment placement has originated through lack of information about work prospects, i.e., the posting of notices or the organization of recruitment so as to inform people of available work. This situation has applied primarily in cases where the work was located some distance away from home.

Word concerning work to be available right within communities usually travels quickly.

The 1972 federal government guidelines for pipeline programs set forth quite clearly the conditions pertaining to employment of northern residents, specifically native northern residents, in pipeline work. $\frac{1}{2}$ One of the key articles of recent guidelines pertaining to social aspects is worded as follows:

Priority placement in jobs shall be accorded native people of the territories in keeping with the tenor of Article 5 of the International Labour Organization Convention 111, 1958, ratified by Canada, and the government's intent to increase employment opportunities for members of disadvantaged minority groups. During the consultation between government, unions and employers as outlined in the Convention, ways and means will be found to ensure access for these employees into the appropriate union locals and hiring halls where there is a requirement. In addition, in accordance with the principle of employment of local workers which is accepted by organized labour, the Applicant will employ labour from the locality where work is being executed to the extent it is available. The Applicant shall comply with the above Convention and employment principles, and cooperate with government's effort to operate an effective recruitment, placement and counselling service. 2/

^{1/} Expanded Guidelines for Northern Pipelines, As tabled in the House of Commons, June 28, 1972, by the Honourable Jean Chrétien, Minister of Indian Affairs and Northern Development, No. 72-3, Ottawa.

^{2/} Ibid., pp. 26, 27, (underlining added).

The initial success, and indeed any success, of efforts to involve territorial native residents to the maximum extent possible in pipeline work, and in ways which will be of benefit to them, depends on the factor of access - to hiring halls, to the jobs. That is, active information programs concerning the availability of pipeline work will have to be developed and carried out. The guidelines do not spell out who has the ultimate authority. Nevertheless, in view of the responsibilities of the federal and territorial governments with respect to northern native residents, it is clear that government must be actively involved in the process of mobilization and recruitment of any pipeline work force of territorial native residents.

Recruitment of local resident labour for work on the pipeline should be reasonably successful if properly managed. Since the discovery of the Prudhoe Bay oil fields in 1969, rumours have been circulating in the North concerning the possible construction of a pipeline. Rumour has been strengthened over the past year by the numbers of government and private industry information tours and other activities in the Mackenzie Valley. It is probably well known generally that there will be many jobs and that the wages will be high. However, as with any topic or subject of interest that does not generate immediate action, general interest will diminish. Furthermore, a program of more immediate interest (and of comprehension to the local native population) is that of construction of the Mackenzie Highway, which will precede the pipeline by possibly quite some length of time.

The recruitment of local labour for the Mackenzie Highway can have considerable implications for the pipeline construction program, in the sense that if general mobilization and recruitment of workers for the highway construction are handled well, there will be lasting benefits for the pipeline. Recruitment must be carefully carried out with every attention to detail. It should be under a central authority; this authority should be clearly vested in an agency which can be readily identified by the local population.

Information Requirements

At the time of recruitment, some clear indication must be given to potential workers as to the nature of the work, the working conditions - e.g., pay, benefits, length of time on the job, travel and accommodation arrangements. It should be the responsibility of the central or co-ordinating government authority to ensure that this information is made known to potential employees. This should, in theory, reduce the numbers of residents who leave the work because they have not understood what is involved.

The 1972 pipeline guidelines \(\frac{1}{2} \) call for the working out between the government, applicants (for permit to build the pipeline) and the local people of arrangements and agreements concerning pipeline employment opportunities. Once these arrangements have been made, preferably well in advance of actual active recruitment, it should then become the responsibility of the authority(ies) handling recruitment to ensure that the information is made available to potential employees.

Methods of Recruitement

The actual method of recruitment will determine the overall success of territorial native involvement in pipeline work. Methods of recruitment for various projects in the past have varied according to a number of factors. Within communities, it might be done directly by the employer or by the local government employment selection and placement officer, if there was one, or by the resident administrator. Since the initiation of activities of the Department of Manpower and Immigration in the North, that department has played a role according to its procedures, usually in conjunction or co-operation with the N.W.T. Government. The N.W.T. Government has been active both in the field and through regional and headquarters offices in employment placement. The Department of Indian Affairs and Northern Development Employment Liaison Officers make contact with potential employers and obtain candidates through either Canada Manpower or the N.W.T. Government.

Studies have been made of the concept of establishing local labour pools within the communities. The most recent proposal 2/ along these lines concerns the establishment of community councils as local employment agencies. The community council would function, or engage a person or group to function, as a local employment broker. Employers would advertise their work force needs; the local employment agency would undertake to provide the workers. While having considerable merit with respect to small local projects, careful study would be required to determine if this method would be effective for large-scale projects, particularly those to be carried out far from the home community.

^{1/} Ibid.

^{2/} Gemini North, 1972.

In order to be effective and beneficial to northern residents, any recruitment program must be carefully planned and co-ordinated. It must have sufficient funding to ensure that information reaches the people.

In addition to providing adequate funds for information and actual recruitment, sufficient funds must be available in the budgets of agencies designated to handle pipeline recruitment to cover the travel costs of unsuitable or unhappy workers returning to their homes. The responsibility for such costs will have to be determined well in advance of actual recruitment.

The larger the numbers of territorial residents recruited from outside 1) the immediate corridor, 2) outside the Mackenzie District, the higher will be the costs of repatriating unsuccessful candidates.

Selection Process

An inadequate selection process has often led to poor results in training programs and employment situations. Two primary factors to consider must be the candidate's health and general qualifications. Any additional information can only improve the chance of successful selection, e.g. information on general suitability for the type of work, emotional balance, and, in the case of native candidates, ability to function in a language other than their own.

Health is extremely important, especially for heavy pipeline work. In terms of cost and disruption to the individuals through travelling, it is most important to ensure that potential workers, before leaving their homes, are healthy and able to stand the work.

The requirement for large numbers of workers may lead to a tendency on the part of those responsible for selection to accept territorial residents who lack certain qualifications. This could arise on the basis of the theory that since there will be so many jobs, a man who cannot handle one would be able to do another type of work. Within certain limitations, this may be so. However, this approach would demand that such candidates be screened to ensure their ability to adapt well to changing situations. This implies considerable knowledge of the residents of his community on the part of the local administrator or selection officer - something which is not always the case.

Ideally, selection should be based on complete know-ledge of 1) the job, 2) the candidate. A complete roster should be available of able-bodied workers, including training and employment histories, to allow fairly rapid selection of those persons who could be quickly and easily slotted into particular jobs on the pipeline.

There are two methods of ensuring extensive northern native participation in pipeline work: 1) insistence on blanket quotas; 2) insistence on maximum possible (or feasible) involvement through such principles of e.g., local hiring, first refusal, assured placement of qualified candidates. The former would lead to high initial native participation, but a rather disappointing - and harmful - situation over the course of the project. Blanket quotas would result in mass recruitment of large numbers of totally unsuitable candidates. This could do lasting harm to the objective of increasing the participation of native residents in the labour force. tendency toward preconceived notions on the part of industry that native workers are inadequate would be strengthened. Many native workers could become quite disillusioned. The latter course of action, i.e., maximum possible, would be much more likely to lead to the development of a stable, qualified native work force. The initial statistics on native participation would not be as impressive, from the point of view of public relations or advertising. Properly managed, however, this approach could lead to steady growth of native participation; it could be more impressive statistically, particularly if high turn-over rates were avoided and if those employed were advancing on the basis of steadiness, work experience and skill development.

The effectiveness of this latter approach would depend on the development of means of keeping track of members of the potential labour force (those undergoing training) and the actual labour force - i.e., a roster or inventory. would be a large undertaking, involving the collating of scattered records on training and employment for persons all over the North. Centralizing the system, beginning at the community levels, would be costly and time-consuming. Sources of such information include the D.I.A.N.D. Manpower Survey Program which obtained information on an individual basis; records kept by the N.W.T. Departments of Education and Local Government (employment service); and the federal Department of Manpower and Immigration. Additional sources might be records kept by local labour pools and those of any development projects which use local labour. Valuable information for any such system could come through records kept on those who work for reasonable lengths of time on

construction of the Mackenzie Highway. At the very least, a carefully maintained community roster would greatly assist the selection of potential candidates, providing some means of ensuring that the most suitable candidates possible are sent to try for employment on the pipeline or any other project.

It will not be possible to completely control selection of workers. Many will go on their own to seek employment directly at the site. However, advance knowledge of the most suitable or qualified potential pipeline workers from among native residents will greatly assist both the program and the people themselves. In terms of economy, the weeding out of undesirable candidates will generate savings on transportation and removal costs.

The costs and benefits of ideal methods for native recruitment, training and employment participation in the construction and operation of the pipeline can be measured. Less tangible, however, are the effects of this participation on those who are already permanently employed.

ESTIMATED TRAINING COSTS ASSUMING A TRAINING CAMP AT NORMAN WELLS

Item	Cost per Trainee (\$)	Total Cost For 1,500 Trainees (\$)	Total Cost For 2,000 Trainees (\$)
Board and Room	1,575	2,362,500	3,150,000
Training Allowance	984	1,476,000	1,968,000
Instruction	1,460	2,190,000	2,920,000
Camp and Equipment	$618\frac{1}{}^{\prime} - 464\frac{2}{}^{\prime}$	927,000	927,000
Travel	250	375,000	500,000
Total	$4,887\frac{1}{}$ - $4,733\frac{2}{}$	7,330,500	9,465,000

 $[\]underline{1}/$ Assumes the total number of trainees at 1,500.

^{2/} Assumes the total number of trainees at 2,000.

REFERENCES

Gemini North 1972 Settlement Council Labour Pools. A feasibility study done for the Department of Indian Affairs and Northern Development and the Government of the Northwest Territories, Yellowknife.

M.P.S. Associates and Unies Limited 1972 "Evaluation of Occupational Classifications and Direct Labour Requirements in Northern Territories", background paper, Winnipeg.

Appendix 1

TRAINING TAKEN BY N.W.T. RESIDENTS UNDER VOCATIONAL EDUCATION PROGRAM IN FISCAL YEAR 1962-1963 BY ETHNIC ORIGIN

Combined Total	19 10 2 2 4 4 1 7	1 2 11 21	28 25 12 34 106
Arctic District Eskimo	10 2 2 2 7 7	1 1 11 17	7 4 1
rict	15 2 17	н н	11 2 2 5 2 6 2 9 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
Mackenzie District kimo Indian Ot	7 1 7		13 4 10 7 7 17 51
Macker		m 2 H	2 8 3 6 1 3
Type of Training and Category of Training	a) Within the N.W.T. Commercial and Clerical Classroom Assistants Auto Mechanic Laundry Operators Mine Mill Operators Plumber Power Plant Operators Total	b) Outside the N.W.T. Tailoring Mechanic Commercial and Clerical Nurses Aide Outboard Motor Repair Total 2. Courses - Sir John Franklin	Orientation Equipment Operators Mechanics Building Construction Home Economics Total

Education Branch, Department of Indian Affairs and Northern Development. Source:

Appendix 1 (cont'd)

3,

BY N.W.T. RESIDENTS UNDER VOCATIONAL EDUCATION PROGRAM IN FISCAL YEAR 1962-1963	1g and Mackenzie District Arctic District Combined Lining Eskimo Indian Other Eskimo Total	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lde the N.W.T. Ising Admin. 1 al Technology 1 al Technology 1 achanics 3 achanics 1 Maintenance Technician 1 nician 1 ve Servicing 1 ineering 1 ional 1 ional 2 al 5 sing 1 1 5 4 1 5 4 1 5 4 1 5 4 1 5 1 5 1 5 1 5 1 5 1 5 4 1 5 6 1 5 4 1 5 6 6 1 7 1 8 1 1 5 4 1 5
N.W.T.	Type of Training and Category of Training	Training e estry ing Guiding	ing Admin. Technology TV Arts Radio hanics aintenance cian Servicing eering

Appendix 1 (cont'd)

FISCAL YEAR 1962-1963	Combined Total		1 2 2 5 5 2	1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	10	1
PROGRAM IN	Arctic District Eskimo		8 2 7		10	
NAL EDUCATION	District lian Other		32	7 1		1 1 2 2 3 3 1 1 1 4 1 1 1 6 1 1 1 6 1 1 1 1 1 1 1 1
UNDER VOCATIONAL	Mackenzie Dis Eskimo Indian		1 8			. ⊢ .
TRAINING TAKEN BY N.W.T. RESIDENTS UNBY ETHNIC ORIGIN	Type of Training and Category of Training	4. (cont'd)	Furniture and Interior D Recreational Leadership X-Ray Technology Electrical Construction Heavy Equipment Operator Total	Apprenti E1 Mo	6. Special Projects Power Plant Operators Total 7. University	Degree Courses-Commercial Arts and Science Zoology Pharmacy Engineering Education Science Nursing Teacher Training

Appendix 1 (cont'd)

YEAR 1962-1963	Combined			412		45 21	106	152	52	2	10	1.7	7	412
PROGRAM IN FISCAL	Arctic District Eskimo			6 8		25	20	24	∞		10		1	6 &
EDUCATION	cict			145		17	2.9	41	32	2		16	7	145
VOCATIONAL	nzie District Indian Ot			132		2	51	7.0	67					132
UNDER	Macken		Ļ	9 7		H 60	21	17	m			Н	1	97
TRAINING TAKEN BY N.W.T. RESIDENTS BY ETHNIC ORIGIN	1 2 0	Correspondence Courses	Purchasing Refrigeration Basic Radio Real Estate Mathematics Municipal Clerk and Treasury Administration and Management Theory Total	Combined Total	Summary	1. Training on-the-Job Within the N.W.T. Courses - Outside the N.W.T.	2. Sir John Franklin School	3. Courses or Group Training - Within the N.W.T.	4. Courses - Outside the N.W.T.	5. Apprentices - Outside N.W.T.	6. Special Projects	7. University	8. Correspondence Courses	Combined Total

Appendix 2

VOCATIONAL TRAINING COMPLETED BY NORTHWEST TERRITORIES RESIDENTS $^{1/}$ BY ETHNIC ORIGIN FISCAL YEAR APRIL 1, 1968 and MARCH 31, 1969

	Number of Trainees						
	Eskimo	Indian	Other 3/	Total 3/			
Course	$\underline{\operatorname{In}}^{2}/\underline{\operatorname{Out}}^{3}/$	In Out	$\frac{1}{n^2} \frac{2}{0} \frac{3}{n^2}$	$\frac{1n^2}{\text{Out}^3}$			
Training for Handicapped Persons							
Pupils with Impaired Hearing Pupils with Impaired Eyesight Mentally Retarded Pupils Receiving Special Medical	6 1 2	5	1 3 _ <u>1</u>	12 1 5			
Treatment Total	9	 5	_ <u>_</u> 5	19			
		_					
Correspondence Courses Surveying and Levelling Chartered Accountant Grade 9 Basic Electronics Electrical Engineering Social Studies Hospital Administration Academic (other than Grade 9 above) Cost Accountancy Public Administration Total Apprenticeship Theory (Trades Only)	3 - 3	1 - 1	1 1 2 1 1 1 1 1 1 1 1	1 1 6 1 1 1 1 1 1 1 1 1 5			
Automotive Mechanics H.D. Equipment Mechanics H.D. Equipment Operator Electrician Oil Burner Mechanic Plumbing Carpenter Commercial Cook Lineman	1 2 5 1 2 2 1 - 14	2 - <u>-</u> 2	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1 2 2 9 1 2 3 1 — 1 22			

 $[\]frac{1}{2}$ Does not include courses which were the complete financial responsibility to the Department of Manpower and Immigration.

^{2/} Inside the N.W.T.

³/ Outside the N.W.T.

Appendix 2 (cont'd)

VOCATIONAL TRAINING COMPLETED BY NORTHWEST TERRITORIES RESIDENTS $\frac{1}{}$ BY ETHNIC ORIGIN FISCAL YEAR APRIL 1, 1968 and MARCH 31, 1969

		Number	of Trainees	3
	Eskimo			Total
Course	$\frac{2}{2}$	$\frac{3}{\ln^2/0u}$	$\frac{3}{\ln^2/0}$	<u>In 2</u> 0u
Occupational (In School)				
Sir John Franklin School				
 Commercial Machine Shop, General Mechanics Automotive Mechanics Other mechanical trades Carpentry Home Economics Applied Arts General Vocational Exploratory (Technical) Exploratory (Commercial) Pre-employment 				66 8 9 8 6 5 11 10 17 9
Sub-Total	2 4	58	116	198
Churchill Vocational Centre				
- Pre-employment	188			188
Hay River Federal School				
- Pre-employment			14	14
Thomas Simpson School				
- Pre-employment			16	16
Joseph Burr Tyrrell School				
- Pre-employment		9	3	12
Samuel Hearne School, Inuvik				
- Pre-employment	<u>17</u> _	<u>15</u>	_2 _	34 _
Totals	229	82	151	462

Appendix 2 (cont'd)

VOCATIONAL TRAINING COMPLETED BY NORTHWEST TERRITORIES RESIDENTS $\frac{1}{}$ BY ETHNIC ORIGIN FISCAL YEAR APRIL 1, 1968 and MARCH 31, 1969

		Numb	er of	Trai	nees		
Course	$\frac{\text{Eskimo}}{\text{In}^{2}/\text{Out}^{3}}$	$\frac{In}{2}$	out3/		her / _{Out} 3/	In-	otal 2/ _{Out} 3/
Continuing Education (Post High School)							
Aeronautical Technology Hostess Industrial Electrical Technology Commercial Pilot Mining Technology Nursing Teacher Gas Technology Photographic Technology		_		_	1 1 2 1 3 2 1	_	1 1 2 1 3 2 1 1
Total					13		13
Continuing Education (Not Post High School)							
Arts and Craft Design Academic Upgrading Carpentry Ceramics Commercial Commercial Art Electrical	2 32 1 1 7 1				1		2 32 1 1 7 1 1
Fine Arts Forestry Management Leadership Training Machinist	17 1	2	14	5	19	7	50 1
Nursing Nursing Aides Pre-Vocational Renewable Resources Secretarial Teacher Training Typist Clerk	12 10	1	2		1 3	1	6 12 10 1 5 1
Total	87	3	16	5	30	8	133

Appendix 2 (cont'd)

VOCATIONAL TRAINING COMPLETED BY NORTHWEST TERRITORIES RESIDENTS $\frac{1}{}$ BY ETHNIC ORIGIN FISCAL YEAR APRIL 1, 1968 and MARCH 31, 1969

			Nur	nber o	f Tra	ainees		
	Esl	kimo	Ind	dian	Oth	ner	To	tal
	$\frac{20}{1}$	3/	-	0ut 3/	-	/ _{Out} 3/		
Course	In-	/ _{Out} 3/	In-	out-	<u>In</u>	Out	111	00
Occupational Training for Adults								
Academic Upgrading	14	1	5	1	13		32	2
Air Radio (D.O.T.)				1				
Basic Seamanship		5		3		4	_	12
Beauty Culture					5		5	
Big Game Guide			21				21	
Boat Building		4		4		4		12
Camp Cooking			4				4	
Canoe and Snowshoe Building				1				
Commercial		1					-	
Commercial Cooking	1						1	
Commercial Pilot		1				2		
Community Health Worker				1				
Co-op Clerks		10		_				10
Co-op Management		9		1			0	10
Driver Training			8				8	
Firefighting			75		25		100	
Fishing Inspection Officer		1						-
Heavy Duty Equipment Operators		12			6		6	12
Home Economics	15						15	
Janitorial	91						91	
Knitting (Factory)		4					0	۷
Lay Dispensers	4		4				8	- (
Marine Engineering		4		4		4		12
Mechanical Drafting	1				17		18	,
Nursing Aides		1		2				,
Nursing Aide Screening					2		2	
Oil Burner Maintenance	12		7		3		22	1 /
Oil Well Drilling		9		1			- 1	10
Pre-Vocational	14						14	
Radio Announcing		1					0.0	
Skidoo Maintenance	14		4		4		22	
Typing			4		36		40	
Total	166	63	132	19	111	14	409	9

Appendix 2 (cont'd) VOCATIONAL TRAINING COMPLETED BY NORTHWEST TERRITORIES RESIDENTS 1/ BY ETHNIC ORIGIN FISCAL YEAR APRIL 1, 1968 and MARCH 31, 1969

	Number of Trainees							
Course	$\frac{\text{Eskimo}}{\text{In}^{2}/\text{Out}^{3}}$		$\frac{\text{Other}}{\text{In}^{2}/\text{Out}^{3}}$	$\frac{\text{Total}}{\text{In}^{2}/\text{Out}^{3}}$				
Other Vocational Training								
Art Lessons Hairdressing - Beauty Culture Radio Operator Radio Repair	_1 _	1	1 1 	1 1 1 <u>1</u> _				
Total	1	1	1 1	2 2				
Mobility and Relocation (Training in Industry)								
Airline Stewardess Ceramics Fiberglas Worker Labourers	1 1 1 2 1			1 1 1 2 1				
Paper Box Worker Seamanship - Deckhand Store Clerk (handicraft Store) Taxiderny	1 _ <u>1</u>		1	1 1 _ 1				
Total	1 8		1	2 8				
Grand Totals	400 181	218 43	280 69	898 293				
	581	261	349	1,191				

Source: Department of Education, N.W.T. Government

Appendix 3

VOCATIONAL TRAINING COURSES TAKEN WITHIN THE

NORTHWEST TERRITORIES, 1971/72 BY SETTLEMENT AND

ETHNIC ORIGIN OF TRAINEES

	Eskimo	Indian	<u>Other</u>	Total
Chesterfield Inlet				
Basic Training for Skill Development	16			16
Basic Literacy	30			30
Total	46			46
Spence Bay				
Housing	40			40
Holman Island				
Home Nursing	16			16
Fort Resolution				
Trapping		4	2	6
Fort Simpson				
Basic Training for Skill Development		19	6	25
Coppermine				
Basic Training for Skill Development	2 4			2 4
Smoke Tanning	20			20
Total	44			4 4
Yellowknife				
Continuing Education	2	1	1	1
School for Retarded University Entrance	2	1 1	1	3 2
Cook Custodian		3 1		3 1
Pre-School Instruction		15	1	16
Total	2	21	3	26
Fort Franklin				
Basic Training for Skill Development		17		17

Source: Annual Report, 1971-72, N.W.T. Government

Appendix 3 (cont'd)

VOCATIONAL TRAINING COURSES TAKEN WITHIN THE

NORTHWEST TERRITORIES, 1971/72 BY SETTLEMENT AND

ETHNIC ORIGIN OF TRAINEES

	Eskimo	Indian	Other	Total
Fort Smith - Adult Vocational Training Centre				
Telecommunications Nursing Assistant	3	4 5	5 4	12 12
Basic Training for Skill Development Teacher Education	11 7 4	21 14	10	42 29 4
Air Cargo Handling Welding Carpentry	3 3 4	4 4 6	4 3 4	11 10 14
Heavy Duty Mechanic Junior Business Administration Clerk Typist Academic Upgrading	3	5	2 2	10 2 8
Heavy Duty Truck Driver Training Guide Training Life Skills	3 14 2	4 17 <u>4</u>	3	10 31 10
Total	68	88	49	205
Hay River				
Sewing		5	36	41
Gjoa Haven				20
Sewing Aklavik	20			20
Rod and Chainman	10	10		20
Latham Island				
Pre-School Instruction		15		15
Rae-Edzo				
Driver Training			30	30

Appendix 3 (cont'd) VOCATIONAL TRAINING COURSES TAKEN WITHIN THE NORTHWEST TERRITORIES, 1971/72 BY SETTLEMENT AND

ETHNIC	ORIGIN	OF TRA	AINEES	

	Eskimo	Indian	Other	<u>Total</u>
Frobisher Bay				
Vocational Upgrading Eskimo Language Homemakers Typing Shopping & Budgeting Social & Housing	80 6 30 6	2	8 4	14 8 80 10 30 6
Total	134	2	12	148
Correspondence Courses				
Business Math & Bookkeeping Aircraft Maintenance Miscellaneous Total	3	2 	1 2 3	2 1 5 8
Clyde River				
Social & Housing Adult Evening Classes	15			15
Fort Resolution Coppermine Pelly Bay Yellowknife Fort Rae Total	6 40 ———————————————————————————————————	25 20 65	5 10 301 316	25 16 40 326 20 427
Training on-the-job				
Telecommunications Operator Tradesman's Helper Mill Helper Heavy Duty Mechanic Assistant Cook Total	<u>1</u> 1	2 .2 .1 —————5	6	6 2 2 1 1 1

Appendix 3 (cont'd)

VOCATIONAL TRAINING COURSES TAKEN WITHIN THE NORTHWEST TERRITORIES, 1971/72 BY SETTLEMENT AND ETHNIC ORIGIN OF TRAINEES

	Eskimo	Indian	Other	<u>Total</u>
Igloolik				
Basic Training for Skill Development	20			20
Pond Inlet				
Basic Training for Skill Development	11			11
Pangnirtung				
Social & Housing	6			6
Grand Total	482	283	433	1,198

APPENDIX 4

A SUGGESTED APPROACH TO THE TRAINING OF TERRITORIAL RESIDENTS FOR PIPELINE EMPLOYMENT

Training Required

Potentially, a pipeline construction program in the N.W.T. could offer employment to territorial residents. A large portion of the labour required for pipeline construction is comprised of highly skilled occupations having prior pipeline experience (e.g., pipeline welders and specialized equipment operators). Nevertheless, there would be a significant number of job opportunities for less skilled classifications which might be filled by territorial residents. Previous pipeline experience would be a definite asset. However, in view of labour shortages anticipated by pipeline contractors, the less skilled classifications could be filled by territorial residents having pipeline related occupational experience combined with training. 1

Territorial residents with appropriate occupational experience would require training in the form of job familiarization. It has been suggested that in familiarizing workers for pipeline employment school instruction should be interspersed with, and supplemented by, field operating experience. 1/

Training Camp and Equipment

Necessary training could be provided to territorial residents by setting up a construction training camp staffed with instructors who could give classroom and field training.

Norman Wells, located at approximately the midpoint of the Mackenzie Pipeline route through the northern territories, might be an appropriate location for a training camp. The size of the camp and the type of facilities provided for board and room could be similar to camps established to support a construction spread.

Two types of benefits could be realized by establishing a training camp in this manner. First, conditions of a construction camp would be duplicated for the trainees

^{1/} Gant, W. and Meeres, R.D., Construction Problems: Arctic Pipeline, a paper presented to the Canadian Northern Pipeline Research Conference, Ottawa, February, 1972.

to familiarize them with the "psychological stresses imposed by long periods of semi-isolation in a harsh environment." $\frac{1}{2}$ / The second benefit would be the salvage value of such a camp and equipment after the training program was completed. The cost of establishing the camp and its attendant facilities would be in the order of \$855,000. $\frac{2}{2}$ / When the training phase was completed, the camp could readily be converted into an operating construction camp for about half the cost it would otherwise require. Thus, the salvage value of a training camp which would subsequently be converted into an operating construction camp would be about \$428,000.

The suggested training program would, in addition to the camp, require sufficient equipment to duplicate field construction conditions. If it is assumed that the equipment required would be equivalent to that used by a construction spread, its value would be in the order of \$1,000,000. About one-half of the equipment value could be realized as salvage if the training camp was subsequently converted to an operating camp supporting a construction spread.

It is estimated that 70 men would be required to operate and maintain the camp. At any one time, 450 trainees and an estimated 50 instructors would be residing in the camp. Operating and maintenance personnel, trainees and instructors would total 570.

Training Courses

Training would be limited to providing job familiar-ization for territorial residents with pipeline-related experience. In order for the training program to approximate the actual conditions of pipeline construction, the duration of training courses could correspond to anticipated pipeline work patterns.

Training Costs

The cost of training territorial residents would include board and room, a training allowance, cost of instruc-

^{1/} Ibid.

^{2/} Capital cost of establishing a camp assumes 570 men at a capital cost of \$1,500/man. See Volume 2 for a general discussion of camp facilities and cost.

^{3/} See Volume 6, Part 2.

tion, travel expense and the cost of providing the camp facilities and equipment for training. In order to estimate average training costs, the following assumptions have been made:

- (a) Board and Room The cost of board and room per man in pipeline construction camps has been estimated at \$17.50 per day. $\frac{1}{2}$ /
 Assuming the same cost for trainees, the cost for board and room for the three month course would be in the order of \$1,575 per trainee.
- (b) Training Allowance A training allowance to provide for income maintenance is assessed at \$984 per trainee. This assumption is based on the training allowance provided by Canada Manpower to trainees having three dependents at a rate of \$82.00 per week.
- (c) Instruction Cost The cost of instruction is estimated at \$1,460 per trainee. This assumption is based on the average cost per month for purchasing space in courses sponsored by the Department of Manpower and Immigration for heavy equipment operators, heavy duty mechanics, pre-employment carpentry and pre-employment welding.
- (d) Cost of Camp and Equipment The total cost of the camp and equipment is estimated at \$1,855,000. If one-half of this cost is attributed to the training program, the cost per trainee would be in the order of \$464 to \$618 per trainee, depending upon the total number trained.
- (e) Travel Expense The cost of travel to and from the training camp is assumed at an average of \$250 per trainee.

Table 1 shows the estimated training costs for 1,500 and 2,000 trainees.

^{1/} See Volume 2 for a general discussion of camp operating costs.

Part 4

THE SOCIAL AND ECONOMIC IMPACT
ON NATIVE NORTHERNERS OF
SHORT-TERM WAGE EMPLOYMENT



Part 4

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CHAPTER 1

INTRODUCTION

Purpose

Unemployment and underemployment and their related social ills, have been chronic in the Canadian North for a generation. The strucural impediments to full employment in the North, such as seasonality of work, incongruity between existing local skills and those required for industrial jobs, geographical immobility, and so on, are well known. Because there is probably no method which is at once ideal and practical for measuring unemployment in the North, percentage figures must always be treated with caution. Government estimates of unemployment among the male native labour force of the Mackenzie Valley have ranged as high as 50 per cent. A crude analysis of the N.W.T. Manpower Survey data $\frac{1}{2}$ indicated that in terms of total man-weeks over a one year period, this labour force was being utilized at only two-thirds capacity. The construction of one or more large-diameter pipelines for oil and gas in the Mackenzie Valley offers the possibility of ameliorating this situation.

The purpose of this paper is to examine whether employment generated by pipeline construction will in fact benefit native northerners. It seeks, on the basis of both past experience and present circumstances, to identify specific socio-economic costs and benefits of short term employment related to the construction phase, and their allocation among various sectors of Northern society. The role of pipeline employment in the more general context of northern development strategy will also be discussed.

Much background material and quantitative data are presented elsewhere in these volumes. This paper does not attempt to reiterate this information, nor is it intended to add another detailed segment of facts on a specific topic to the total body of information. It is instead a more general discussion of the social and economic implications for native northerners of pipeline employment. It is an exploratory and preliminary statement of the problem, which seeks more to generate hypotheses and indicate directions for further inquiry than to present final answers.

^{1/} Conducted by the Department of Indian Affairs and Northern Development, and covering the period October 1, 1969 to September 30, 1970. See Volume 6, Part 1.

Definitions and Assumptions

The use of the phrase "short term wage employment" is restricted here to a consideration of direct employment in construction either of the pipeline itself or of related facilities such as access roads, storage and maintenance depots, or temporary accommodations; that is to say, all employment offered by contractors responsible to the pipeline consortium during and for the construction phase. 1/Such employment will involve, for native people particularly, the use of unskilled labour, or of semi-skilled or skilled labour with specializations related chiefly to the construction industry.

The designation of such employment as "short term" in this paper is based on several facts and assumptions. Overall, the construction phase will last approximately three seasons, with possible extensions resulting from preand post-construction phase work. At any one location, the duration of these phases will presumably be rather less. In addition, certain skills may be required for only one or two seasons. Therefore, construction and related employment on the pipeline can last a maximum of perhaps four or five seasons (unless gas and oil pipelines are built in sequence). Most individual jobs may in fact last for less time by virtue of changing requirements for specific skills, by the movement of crews from one district to another, and the seasonality of the work. The additional assumption is made that in order for such temporary employment to become a long term career, either the pipeline must be followed by similar massive construction projects in the North, or those northerners who have acquired the appropriate skills must move south in order to continue making use of them. Because one cannot state with certainty that government or industry will guarantee the first, or that northerners will want to do the second, employment in the construction phase must be considered short term.

^{1/} In general, however, the burden of this paper applies with equal force to the construction of an all-weather high-way along the Mackenzie Valley.

CHAPTER 2

PREVIOUS EXPERIENCE WITH SHORT TERM CONSTRUCTION PROJECTS

DEWLine and Inuvik

Before discussing the pipeline project in detail, it will be useful to examine the experience with similar previous construction projects. In the 1950's, there were two such major projects involving Mackenzie Valley residents: the DEWLine and Inuvik. These projects came at a time when the local economy was very depressed. Both were relatively labour intensive, and offered what seemed high wages for relatively unskilled work. The employment generated by these projects was seen by the government as an opportunity for native people, not simply in terms of the immediate wage inputs to the local economy, but also as a means of initiating a major shift to wage employment in the North. Trapping and hunting seemed dead or dying; permanent or even long term, balanced northern economic development seemed years away, and temporary construction projects seemed an effective means of transition between the two. In other words, the benefit to native people was seen to lie not only in wages, but also in training and experience for the modern industrial world a world marching inexorably closer toward their own doorstep. The government therefore undertook to provide vocational training opportunities for native people, and to ensure that they were hired in significant numbers on these construction projects (see, for example, Phillips, 1967).

In considerable measure these immediate goals were realized. Ferguson (1957:28) estimated that in the Western Arctic nearly 200 men, (about one quarter of the potential labour force) were employed on the DEWLine in the summer of 1956, one of the peak construction years. Over 50 Indians from the Mackenzie River also found employment on the DEWLine. The simultaneous construction of Inuvik also employed significant numbers of native people, chiefly from the Mackenzie Delta itself.

A heavy equipment operators course was initiated at Leduc, Alberta, which many native people attended. This, as well as other vocational training opportunities and on-the-job experience, provided many people with new skills. The wage input to the local economy was very significant as well. Ferguson's data (1957:37) suggest that native employees on the DEWLine collectively earned about \$500,000 in 1956. Most of these employees worked steadily for the greater part

of the year, so long as employment was actually available. Individuals earned \$3,000 - \$4,000, far more than was possible on the trapline for most of them at that time, although they incurred extra costs for themselves and their families by assuming wage employment because they became less self-sufficient in terms of food, clothing and shelter.

Some Effects of the Projects

In the longer term, some of the significant effects of this short term employment were as follows:

- 1. Major population shifts. Short term employment, while by no means the sole cause of population movement, contributed to a situation in which large numbers of people abandoned the small, scattered camps for town-oriented life. Locations dictated by administrative and defence needs were not necessarily congruent with traditionally resource-rich areas. Many people therefore were unable to maximize local resource and wage employment opportunities simultaneously. For this and other reasons explained below, a shift to wage employment entailed a longer term commitment than was envisaged by many native people.
- The short term injection of cash permitted an inflated and unrealistic living standard that could not be maintained in the longer term. Income was often disposed of almost as soon as it was realized, and long term savings were minimal. This is partly because the financial mechanisms were largely restricted to short term savings (i.e. local store accounts, and personal savings accounts with chartered banks which were encouraged by Northern Service Officers), and because most native people were simply not oriented to the idea of saving money for some indefinite future purpose. There were, of course, some wage earners who saved considerable amounts, often to invest in capital equipment for renewable resource harvesting. Ferguson noted that these had often been the best trappers and hunters prior to employment. Others saved for short term purposes such as the purchase of radios, tape recorders, cameras, or for travel "outside". Gambling was also a significant means of redistributing wealth. In the case of

Inuvik, some individuals purchased frame houses which had served as bunkhouse accommodation during the construction years, although these were also acquired through compensation for houses in Aklavik, and through welfare. Particularly in the Delta, such spending patterns were typical of those already developed during the earlier boom period of the fur trade (Usher, 1971:50-55). These patterns were also influenced by transient white co-workers, some of whom advocated saving, others of whom encouraged "binge" spending.

Very rarely were spending and saving patterns 3. similar to those customary in southern Canada. This was due partly to the lack of similar opportunities or mechanisms, and partly to the lack of similar incentives or inclination. People rarely committed themselves to the long-term purchase of a house or household furnishings through mortgages or credit, to the capitalization of one's own business, to investment in stocks or bonds to generate further revenue, or to investment in pensions and insurance as deferred income. Not only were savings not used for individual advancement (as perceived by southern Canadians), they were not used for collective advancement either. That is to say, groups or communities did not pool their individual savings for community improvements or for investment in cooperatives or similar ventures, save for isolated examples such as the Inuvik housing cooperative. Clearly it cannot be assumed that if native people begin to earn similar incomes to whites, they will dispose of this income in similar fashion; or at least in the fashion valued by middle class southern Canadians.

For every man who saved and invested in new capital equipment (and it must be noted in any case that depreciation on such equipment is fairly rapid), many more allowed their existing stocks to dissipate. This was often due to circumstances beyond their immediate control. The result was that when employment ceased, many no longer had the traps, dogs and boats necessary to resume their land-based activities, nor the means to purchase such equipment. Loans and advances were made available in some instances, but rarely in sufficient amounts.

- 4. Because comparatively high wages were obtained for what in most cases was unskilled labour in relaxed work situations, unrealistic expectations were built up which could not be realized in a more normal and competitive labour market even if jobs had been subsequently available in larger numbers than was actually the case.
- 5. Some men learned new skills fitted for continued wage employment; chiefly the operation of heavy equipment. The opportunities for utilizing these skills following the construction period were quite limited, especially in the smaller settlements. The number of such men is unknown, but many, and perhaps most, have received little long term benefit from their training and job experience. Unable to use their skills regularly, they presumably become less and less qualified by virtue of lack of practice and unfamiliarity with new equipment.

The acquisition of vocational skills was not in itself sufficient to encourage greater labour mobility, and as a result very few men who acquired them actually moved to other parts of the North, or to southern Canada, where they could use them. Family and community ties, unfamiliarity with other areas and social situations, and the preference for a mixed wage and land economic and cultural orientation, were among the factors resulting in this immobility.

6. Many people have observed that, particularly amongst Eskimos, there was a tendency for the best trappers and hunters, who were often accordingly leaders in their communities or camps, to assume wage positions more readily and to succeed in them on a long term basis (Ferguson, 1957:38; Stevenson, 1971:23). These men either left their communities entirely for construction camps or larger settlements, or they became part of a select group within the community which obtained the few available full-time wage positions. There was thus a "decapitation" effect on many camps and small communities so that those remaining were less able to pursue their traditional activities effectively and less able to cope with social changes.

4 - 7

CHAPTER 3

PRESENT STATUS AND ATTITUDES TOWARD WAGE EMPLOYMENT

The present situation with regard to wage labour employment among native people, as well as their attitudes to it, is in part a legacy of these experiences. Some outstanding aspects of this situation are as follows: $\underline{1}$ /

1. Land based activities are no longer of primary economic significance in dollar terms, at least in the larger settlements. Recent surveys indicate that the proportion of cash income to native people derived from trapping varies from less than ten per cent in the larger settlements to perhaps thirty per cent in the medium sized ones (viz. Higgins, 1969:182, 206; Smith, 1971:306, Villiers, 1968:122, 129). Even if the cash equivalent value of fish and game is included, most native families in the Mackenzie Valley now derive more income from wage labour than from land-based activities. The movement off the land and into the towns has already occurred, and can no longer be thought of as a continuing process, except in the sense that there appears to be a continuing net out-migration from smaller centres to larger ones $\frac{2}{}$, possibly involving continued "decapitation effects" as described above. In the minds of many native people, however, this is not necessarily seen as the end result of an irreversible process (see below).

In the larger Mackenzie Valley towns particularly, there now exists, as noted in the Introduction, an underemployed native labour pool, having certain sociological

^{1/} These remarks apply particularly to the Lower Mackenzie Valley and the adjacent Arctic Coast, the areas most familiar to the writer.

Z/ Examination of preliminary census returns for the Mackenzie Valley indicates that the number of people living in traditional settlements or camps (i.e. not including mining towns) of under 500 was 2,351 in 1966 and 2,420 in 1971. This indicates a net growth rate of less than one per cent per annum, far less than for the valley as a whole, and also less than the average rate of natural increase. This strongly suggests a net out-migration from the smaller settlements and camps over the last five years.

characteristics of a "lumpenproletariat", as defined, for example, by Brody (1971:27)½/. So far as native people are concerned, jobs are the major economic resource such towns offer. The impact on population distribution of a major construction program now cannot be analagous to the situation of fifteen years ago. The problem is presently more a social one of the implications of labour mobility from home communities to temporary work sites (see, for example, Deprez, 1971:69-71). Land based activity still has important social and cultural implications despite its decline in economic significance.

There is some degree of participation by native people 2. in wage employment, and their commitment to such employment and its associated way of life is slowly increasing (Wolforth 1971:112-115). Yet this participation is even today limited largely to the less skilled and lower paid sectors of the labour force, as Wolforth also documents. This is in spite of government efforts both to upgrade the skills and experience of the local labour force, and to make hiring practices and requirements more appropriate to the local labour force. Everywhere in Canada, industry requires an increasingly skilled and sophisticated labour force. This seems no less true of the North. Yet due to the particular problems of economic adjustment and cultural change in the North, as discussed in this and other reports, the problems of developing an appropriately skilled and sophisticated labour force are greater there than elsewhere. It may in fact be that the skills, education and experience required for most northern wage positions, and especially those offering the highest remuneration, status and power, are increasing at a rate faster than the effective implementation of the programs just mentioned.

There is emerging, then, a very definite correlation between ethnic status and class structure. It is also still true that there is higher turnover of native people than of whites in their jobs, particularly in the larger settlements where there is a more diversified labour

^{1/} i.e., having little or no attachment to any stabilized socio-economic class or to the means of production.

force (see Wolforth, 1971:118) \(\frac{1}{2}\). In part this is attributable to the differing nature of these jobs (i.e., that turnover rate is primarily a function of the job itself than of the ethnic status of the incumbent). It is also due to differing attitudes toward wage employment as will be explained below. In any case, the emergence of an ethnic-based class structure is not a desirable development. It certainly contributes to the increasing polarization and hostility between the white and native communities in the North.

The attitudes of large numbers of native people to wage 3. employment would not appear to have changed significantly in recent years. Lifetime commitment to wage employment, as well as the associated saving, spending and career planning patterns implicit in this way of life, is not widespread. The economic history of much of the Mackenzie Valley and the adjacent Arctic Coast has been one of boom and bust, from the whaling and fur trade days to the present. Little or nothing in the experience of most native people has given them reason to share the economic assumptions of most Canadians today. The idea of moving inevitably up a career ladder, of having one's pay packet increase at five per cent per year, of getting a new couch this year and a colour TV the next; in short, the assumptions of continuing and almost uninterrupted economic progress toward plenty through "hard work", are not current among native northerners.

Jobs are then a resource to be exploited toward specific ends. Many native northerners, especially those only partially oriented toward town life, tend to seek and then leave jobs once they have earned enough money for some specific purpose. In the unskilled and semi-skilled sectors, where turnover is high, Wolforth suggests that

In the smaller settlements particularly, there are native people who long ago assumed such jobs as school janitor, special constable or store clerk, and have since seen many of their respective supervisors - the principals, corporals and managers - come and go. In the industrial sectors such as construction and mineral exploration, however, the length of tenure by native employees tends not only to be much shorter, but also less predictable (by their employers, at least).

the ease of obtaining such jobs on a short term basis results in jobs not being valued for their own sake, but rather as temporary strategies. Such attitudes would presumably be reinforced by the prevalent availability of jobs which are in fact of short term duration. The idea that employment in the low paying, unskilled sectors of the labour force is an inevitable stage of an assimilation process whereby native people will eventually progress to the higher stages through the adoption of work and wage ethics may make sense to whites, but apparently it does not make sense to large numbers of native people. The polarization process referred to above may be a manifestation of the plural social structure documented by Smith (1971). Smith notes several barriers to mobility between the two sectors and raises the question of whether upward mobility and integration do follow naturally from the mere entry of native people into the labour force. He suggests that this and related developments tend rather to rigidify ethnic and class differences.

4. The importance of the land and its resources to native people today is not generally appreciated by non-native people. The question is related to the attitudes toward wage employment and economic progress described above. Given that the "white man's economy" appears to many native people as an erratic, boom-bust phenomenon, the land and its resources are by comparison permanent. It is perhaps for this reason that concern is expressed by native people about development activities which affect the productivity of the land and permanence of its resources, even by those now holding regular employment. Such people may prefer wage employment to hunting and trapping, but they may also see the latter as insurance against the day when employment may not be available. This attitude, although seldom articulated explicitly, appears to be deep-rooted and widespread.

^{1/} With good reason, one might add, for the notion does not stand up well to sociological examination, either in the North or elsewhere. The streaming of students, and their point of entry into the labour force, are becoming increasingly strong determinants of their subsequent careers, income and status, (see, for example, Berelson and Steiner, 1964:470-473).

There is also a cultural attachment to the land-based way of life, as evidenced by the fact that many permanent employees still hunt and trap in their spare time. One recalls the opposition some years ago to the proposal of splitting the general hunting licence into separate hunting and trapping licences, the latter to be unobtainable by those in regular employment. Some have suggested that the concern of employed, relatively "acculturated" native people with the land and its resources is either a phony or a pretext. If our hypothesis is valid, such suggestions would be largely or entirely incorrect. The increasing consciousness of the land rights issue on the part of many native people, however, introduces another element. Some may fear that by failing to exercise their traditional use of the land, they may be jeopardizing their effective claim to it. This would be a negative factor in encouraging both entry into the labour force and geographical mobility.

5. There do not appear to have been significant changes in the spending and saving patterns which were characteristic among native people in the 1950's. Cash surplus to immediate needs is still spent largely with short term objectives on non-durables, or on such durable items as snowmobiles and outboards, now of more significance as pleasure vehicles than as means of production. Typically southern Canadian financial mechanisms for savings and investment, such as banks and insurance agencies, are now more widespread in the North, but these are still not widely used by native people except for short term savings (see, for example, Smith, 1971:302).

Many native people in the Mackenzie Delta are cynical about wage employment derived from oil and pipeline activity, including those who have obtained such employment. They feel that although there is more money available, it is of little long term value to them: "we just piss it away in the hotel and we're not better off in the end". Like so many short-lived economic booms in the past, the prevalent attitude to wage employment in oil activity is to make the most of it while it is there and suffer the hangover afterwards. Typically, whites interpret this as laziness and improvidence. From a social scientific point of view, however, such behaviour is more readily explained by the alienation and powerlessness felt by native people individually and collectively. Job opportunities may be available to native people, but power and status are clearly, in their eyes, monopolized by the white community. Local control and

participation by native people are perceived by them to be declining, and improved access to jobs and wages are not seen as a remedy to this larger problem, although clearly the great majority do want some form of employment as a means of obtaining cash. Jobs, then, may be a necessary but not sufficient means of rectifying the basic social conflicts and ills of northern society.

More specifically, although there are now financial institutions to facilitate savings, these are in the control of the white and externally controlled sector of the economy. There is no significant financial infrastructure within the native sector to enable the accummulation and disposal of funds under local collective control, although clearly the few native businesses, and the local cooperatives with their limited roles and responsibilities, represent beginnings in that direction.

The general observations made in this section apply chiefly to adults. Less is known about how the schools have altered attitudes toward employment, spending and saving among younger people including those now entering the labour market. Smith's work (1971) suggests that job aspirations among native children are not significantly different from those of white children in the N.W.T. He also suggests, however, that there has been no corresponding convergence in the attitudes toward the means of realizing these aspirations.

CHAPTER 4

THE FUTURE

Objectives

Deprez' remarks in a recent report on native employment at Pine Point are relevant to a discussion of objectives.

"When priority is given to the development of natural resources in a given area then different reasons could be underlying this development. The reason can be strictly in terms of demands for this given natural resource or in terms of financial benefits. When this standpoint is taken, increased employment resulting from that development is only considered to be a by-product. Another reason for developing natural resources can be the need for increased employment and/or increased economic viability of a community or a group of communities. In that case the development of natural resources is only considered to be a vehicle, a means by which increased employment can be achieved. Whichever reason it may be one will have to plan the development in function of the reason to which priority has been given". (Deprez, 1971:193)

The investment of several billion dollars in a Mackenzie Valley pipeline would clearly be for the first reason and not the second. If a decision is made to build a pipeline, it follows that the Department of Indian Affairs and Northern Development, as well as the territorial government, will be in the position of accepting the basic technology and labour requirements involved. Despite these constraints, the policy options of these two agencies are still of considerable significance to the people of the Mackenzie Valley. These options include having some influence over the specific but not the general location of the pipeline, and particularly of temporary construction camps, as well as local construction and energy benefits resulting from pipeline activity. The two agencies will have even greater influence over the nature and benefits of the involvement of native people during the construction of the pipeline. Their strategies must be in keeping with the federal government's recently adopted northern development objectives. Those most relevant to the present discussion are:

- To provide for a higher standard of living, quality of life, and equality of opportunity for northern residents by methods which are compatible with their own preferences and aspirations.
- To encourage viable economic development within regions of the Northern Territories so as to realize their potential contribution to the national economy and material well-being of Canadians. (Canada, House of Commons, 1972:30).

These objectives can be, but are not necessarily, compatible. The construction of a pipeline in itself serves the latter objective primarily. It must be ensured that it also serves the first objective.

Two basic questions must therefore be answered:

- 1. Is short term employment during the construction phase the most appropriate means of maximizing the benefits of the pipeline to native northerners in terms of their own preference and aspirations?
- 2. If so, or if in part so, what employment strategies are the most appropriate, and are there other relevant development strategies?

Future Directions and Options

Rigid technological and labour requirements are significant constraints on native employment in pipeline construction. In Alaska it has been estimated that only about 40 per cent of the jobs involved in pipeline construction would be open to the bulk of the native labour force in terms of the skills required (Education Systems Resources Corp., 1971:63). In the Mackenzie Valley, where the labour force is less skilled, recent federal and territorial government estimates place potential native involvement at as low as 20 per cent. In both Alaska and Canada, these jobs are in the lower paid, less skilled categories.

In many wage labour situations involving native people, adaptations of the standard industrial work schedules and routines have been suggested or attempted with a view to making them conform more with traditional native practices and preferences. While such an approach is certainly to be encouraged, pipeline construction work schedules and routines are generally very rigorous and hence less adaptable than

those of many other industries. The difficulties and expense of employing people unable or unwilling to conform to these requirements may result in contractors fulfilling the letter but not the intent of employment guidelines. There is a risk that employers will place the required number of native people on their payrolls, but give them unrelated or even useless jobs so that the real work can be done quickly and competently by workers of the employer's own choice. While such a development would bring cash income to native people, it would certainly not give them long term benefits in skills and experience. It would also be demoralizing to them because they would soon recognize it as another form of welfare. This welfare would be paid by the Northern American public since the pipeline companies would presumably pass this added cost of doing business on to their customers.

The construction phase of the pipeline may be imminent. It is unrealistic to suppose that significant numbers of native people can be trained for other than unskilled or semi-skilled jobs in the next year or two. The cost of large scale training programs may in any case be well out of proportion to the benefits received, especially if the skills acquired will not be readily usable in people's home settlements. Careers in pipeline employment require high mobility, which for reasons outlined above is not to be expected among native people under present circumstances.

It has already been suggested that unemployment is only one facet of a larger socio-economic problem resulting from a lack of control or even participation by native people in many significant aspects of local life in the North. It also appears unrealistic to expect that the many other programs necessary to change that situation could be implemented by the time construction begins. It would follow that insistence on large scale native employment during the construction phase will serve to rigidify already developing ethnic-based class divisions, and that the income generated to native people will not be of lasting benefit to them. In short, such employment will not only fail to be "compatible with their own preferences and aspirations", but will also fail to provide a lasting basis for improving the standard of living or quality of life.

Nevertheless, it is in no way suggested that native people be denied employment in the construction of the pipeline. Those who are willing and able to take such employment should be encouraged to do so. It may be that if the contractors were encouraged to take the time and effort with a few really promising employees, greater benefit might be derived than if large numbers of less interested people were forced onto the contractors.

The burden of the argument to this point is that an employment policy based on either a quota system or compensatory hiring provisions would not in itself appear to be the most effective means of achieving the goals of increased income, job stability, social status and participation by native northerners. A more promising approach may be the principle of first refusal on all jobs. Jobs would thus be filled by outsiders only in the event that no willing and reasonably or readily qualified residents were available.

The principle of first refusal will ensure opportunities to those native people who really want employment during the construction phase, yet not cause undue disruption by pushing those who are not so anxious for this type of employment. To offer special enticements to get people to seek employment is to risk again the building up of unrealistic expectations of earnings and work routine relative to the tasks actually performed.

Such an approach does not exclude the possibility of combining some compensatory hiring features with it. Even if the principle of first refusal were adopted, some form of recruitment would still be necessary. At the very least, jobs must be advertised, placement officers would have to visit the settlements, and so on. In doing these things, some differentiation should be made between settlements in recruiting effort. In the larger towns such as Inuvik, there is a greater proportion of people already oriented to wage work, and a greater need for jobs which are practically the sole raison d'être of these communities' existence anyway, at least for native people. There is also, in the larger towns, a greater need for diversification and skills in the local labour force. People who acquire industrial skills and experience are more likely to put them to good use if they live in Inuvik than if they live in Arctic Red River.

In the smaller, more traditional and land-based communities, people remain there at least in part by choice, and prefer that way of life. These are the communities most likely to suffer severe social disruption and "decapitation effects" from massive recruiting efforts resulting in significant numbers leaving for wage employment elsewhere. In these smaller communities, efforts should be geared to making their economies more viable through improved use of local resources. This does not in any way imply a policy of denying employment to people in the small settlements (or, for that matter, trapping and hunting to people in the larger settlements). By encouraging differentiation of functions between the small and large settlements, a greater measure of choice is provided to northerners in the ways of life they can follow. There seems little point in replicating Inuvik in every northern settlement.

Indications are that pipeline employment will involve considerable labour mobility. Crews will be moved periodically between temporary camps, and construction may be of only a few months duration at any one time, presumably depending on the construction technology employed and on the land use regulations devised by the government. The social disruptions certain to be caused by the presence of large numbers of white transient workers in or near existing settlements are such that temporary camps should be located some distance away from these settlements, regardless of cost or inconvenience. For those who are employed in the construction phase, problems will arise from the disruption of family life, and neither allowing employees' families on site, nor accommodating men in temporary bunkhouses, will be without attendant difficulties. Possibly recruiting efforts should be directed to younger, single men, although their economic need may be less than that of older family men. Final employment arrangements will be strongly influenced by the contractors' arrangements with imported labour. If, for example, they use shift systems with free transportation in and out, similar arrangements will probably have to be made with native employees. Here there may be a risk of building up unrealistic expectations for future jobs. It is doubtful that any totally satisfactory solution can be found, but all parties should be fully aware of the costs and consequences of choosing any particular option.



CHAPTER 5

CONCLUSIONS

Impact of Pipeline

Short term construction employment on the pipeline will most likely be of direct benefit, in terms of income and experience, to only a fairly limited number of native people. For many others, the indirect effects of the pipeline will be an intensification of processes already entrained, especially in the larger communities. The social impact of the pipeline on most native northerners will tend to be an adverse one, though of degree rather than kind. The increased presence of oil and construction personnel, and the build-up of businesses and services catering primarily to them will increase the sense of alienation and loss of control of their own society and destiny on the part of most native people, despite increased employment opportunities in activities other than actual pipeline construction.

Possible Counter Measures

These problems cannot be solved in any significant way merely by the formulation of employment guidelines. Native people must be permitted to participate more actively in local developments and to exercise a greater degree of control over activities directly affecting them. Three specific directions are relevant here.

- 1. Local renewable resources are still a source of much potential wealth. Activities based on their harvesting and processing should be strengthened. In the past, programs toward this end have met with mixed success. One learns from experience, however, and clearly a set of separate, unrelated strategies for each industry will not suffice. An integrated approach is required which will encourage intersectoral linkages in order to develop a more balanced economy under as much local direction and control as possible.
- 2. Greater consideration should be given to secondary industries which will provide long term employment. Eventually this will have to come if there is to be any real basis for a sustained and ordered economy in the North. Too much attention to temporary solutions offered by

major construction projects merely postpones the day when serious consideration will have to be given to long term development. The pipeline does offer the prospect of long term employment, and every encouragement should be given to native people to take part in it. Yet the number of jobs involved in the operational phase will not nearly fulfill local requirements. What are we to rely on then? Plans for pipelines must not be made at the expense of policy for longer term development.

3. In encouraging both renewable resource and secondary industrial development, consideration should be given to the role of co-operatives and local development corporations as appropriate institutional frameworks. These are the mechanisms which will permit the greatest possible local control over the mobilization of capital, and hence encourage the actuality as well as the sense of participation by native people. Direct injections of cash, through royalties, land claims settlements, or other means, to such organizations (as in Alaska), may be a much more powerful means of achieving desired long term goals, than the injection of cash through wage employment on the pipeline.

Directions for Further Inquiry

The general social and economic problems of the North cannot be solved primarily through employment and income programs. The approach to their solution must be broadened, but in order to do so, considerably more understanding of the social and economic processes at work in the North will be required. In particular, there is a need for greater understanding about the attitudes and values held by native people, such as their attitudes to the land and its resources, to the economy, and particularly their goals related to jobs, careers, savings, spending, and what differences exist in these attitudes between older people and younger people. Several hypotheses have been suggested in this paper, but they require testing and validation.

In addition, futher consideration is required of the means and possibilities of encouraging local savings and developing investment mechanisms for longer term and larger scale purposes. How effective a role would the development of such institutions play in solving social and economic problems?

In conclusion, employment during the construction phase will be of benefit to limited numbers of people. Employment guidelines should emphasize maximizing these benefits to those most able to realize them, rather than pushing as many people as possible into such employment with no clear long term goal.

Construction employment should not be seen as the sole solution for the employment problems of large numbers of native people. Consideration should also be given to a number of possible alternative solutions such as outlined in this paper.

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